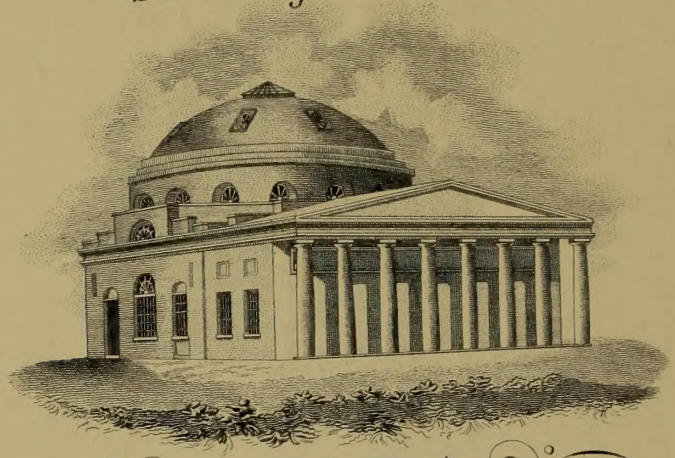

University of Maryland [illegible]

Early Doctor of Medicine and Doctor of Physic [illegible]
Consolidated Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and the Degree of Physic during the years 1811-1817. The individual dissertations were bound together during the 1940's. The original order of contents for the bound volumes contained no table of contents, nor indexes. Time and/or years. To address these issues, an additional "Consolidated Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the titles of dissertations were: Richard J. Bohler, Historical Collection Development Officer, Angela Millagros Pratt, Metadata Management Librarian, Angela Dorkenoo and Carol Hedges-Henry, Resources Division, Sarah Sproule, Alex Jackson and Maggie Wolff, Services Division.

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University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

These dissertations were digitized in 2011-2012 and are available at the UM Digital Archive (archive.hshsl.umaryland.edu) and the Internet Archive (www.archive.org).

(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1881 (c)

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James, William Dudley	Diphtheria	
Wilson, Robert T.	Chloroform	
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Cushing, Wilson R.	Pneumonia	
Lloyd, George S.	Morbus Coxarius	

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	Notes
Ritter, Francis O.	Typhoid Fever	(no title page) [1]
Warren, James M.	Syphilis	(no title page)
Kinzer, John S.	Anaesthetics	
Pitts, Barton	Errors of Refraction	(no title page)
Smith, Manning P.	Typhoid Fever	

[1] Notes in inner margin lost in binding.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1881 (c)

Stephenson, ~~M.~~ Matt K.	Typhoid Fever	23p.
Simmons, ~~H. M.~~ Horace Melville	Meddlesome Midwifery and Errors in Obstetrics	26p.
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~~Knizht, J.~~ Kinzer John S.	Anaesthetics	20p.
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Typhoid Fever

Matt R. Stephenson
of
North Carolina

51

Not at the word typhoid, commonly used to designate the fever now to be considered, objections have been raised on account of its liability to lead to confusion, it being a name frequently applied to a condition incidental upon many diseases, and hence there has been an introduction of new names for the same morbid condition. It has been called abdominal typhus by some writers, but by others, enteric fever. Another has been given to substitute the word "typhoid". Against these names, however, objections may be urged with equal justice, inasmuch as the first and second relate to the characteristic intestinal lesions, and are therefore calculated to force the

impression that the fever is symptomatic rather than idiopathic, which the third is objectionable on the ground that it has not got been conclusively proven that malarious material is the special cause of the disease.

Symptoms.

This fever is said to commence gradually than any other. Its premonitory symptoms are debility, an indisposition to exertion, loss of appetite, headache, languor, with blood rise and a tracheal cough. After the lapse of a few days, varying in different cases, the patient takes to bed with considerable fever. A fresh mottle

in depth of tint may be observed on
wiping the cheeks. The eyes are slop-
and distended, and dilated pupils
and there is generally more or less delir-
ium especially at night. The pulse is
accelerated and weak. The tongue presents
usually a yellowish or brownish fur, and
for the last week it is apt to collect
on the teeth and lips. Stools, in
times are generally noticed about the
beginning of the second week. These are
typhoidic diseases; but deserving
pressure with an irregular tubes
sound may be heard in the neigh=
borhood of the ileo-caecal valve,
and a gurgling sound may be raised
erably perceived; and which belongs

comprise the diagnostic symptoms of the disease. The stools have a yellow, ochre color and are said to be alkaline in reaction. The specific skin eruption or typhoid rash, which presents the appearance of a flea-bite, and, which like it disappears on pressure, usually makes its appearance about the the middle of the second week. and breath

The urine presents symptoms of a well marked febrile character, the former having its watery portion lessened while its solid ingredients are increased, the latter being high, and offensive

indicating thereby an excessive amount of decomposing organic substance. In the late stages of an attack of typhoid fever there may be suppression and retention of urine together with subsultus tendinum and hemorrhage from the bowels. The temperature of this disease deserves a special mention, since it is one of the principal diagnostic symptoms. Its gradual ascent from the normal degree to 104 or 105° by the fourth day is quite distinctive. Having attained such a height in such a length of time, it is apt to rise higher or become stationary until the eleventh day when

defervescence usually takes place. An attack of disease in which the temperature rises high as 104° on the second day would very likely be some other than typhoid fever; and if, from the fourth to the eleventh day, the temperature should fall below 103° good evidence would be afforded of the disease being some other than that under consideration. The evening temperature is usually higher than that of the morning. A sudden increase of temperature is indicative of an inflammation.

Complication.

Duration.

It is difficult to fix with any great degree of accuracy the duration of an attack of this disease, since it comes insidiously, that the exact date of its commencement cannot generally be determined. Reckoning from the time the patient takes to bed to leaving it convalescent, one month may be considered the average time.

Morbid Anatomy.

Omitting exceptional and

non-essential appearances;
the most important
morbid changes that are
found in typhoid fever take
place in the follicles of Peyer,
the solitary glands together
with the mesenteric glands.
It is said that the agminated
glands of Peyer's patches, at
first, undergo a change in
color and a morbid hypertrophy,
being raised a line or more
above the level of the adjacent mucous
surface. At a subsequent
period, many of these altered
glands undergo ulceration
which may proceed to such an

extent as to perforate all the coats of the intestine, and thereby bring about a very serious complication. The solitary glands are not always affected, but, when involved they present the same appearances as do the Peyerian patches which by accumulating together they form. Enlargement of the absorbent glands is said to be uniformly associated with the characteristic intestinal lesions.

Complications—

A low grade of pneumonia is very frequent. Inflamation of the brain

occasionally arises as a complication; while peritonitis occurs whenever there is perforation of the coats of the intestine.

Sequelæ—

Prolonged debility, mental weakness, temporary paralysis and abscesses—

Causation—

As respects the cause of it is clear there is a great deal of doubt. Dr. Murchison who has given to it the name of "pythogenic" fever is of the opinion that the most frequent cause is ordinary sewer emanations or decomposing animal matter; another view is

that the affection of the intestine is primary and that the putrid material from the glands of Peyer by absorption into the blood produces a septicæmia with typhoid symptoms. The true cause of the disease, so far as I am able to learn, is a specific poison which is quite distinct from that of typhus, as the latter can be communicated from the sick to the well by the exhalations while the former is not suspected to be transmissible in that way. That typhoid fever is infectious is agreed upon by many authorities; and the

means, by which, it is transmitted from ~~fxxx~~ one individual to another we shall now consider. The chief agency in the propagation of the disease is the specific matter contained in the faeces of typhoid fever patients. The atmosphere may become impregnated by the dissemination of the virus with the emanations of the excreta or the poison may gain access to drinking water which when contaminated is the great channel by which the disease is communicated from the sick to the well. Milk is not uncommonly the vehicle by which

the poison is conveyed into the systems of others, either in consequence of being adulterated with water exposed to contamination or of its being received into cows washed by water tainted with the typhoid virus. As respect predisposing causes, we may say that depressing causes of all kinds seem to favor its occurrence, such as foul air hard work either mental or physical anxiety &c. It is restricted to no particular locality, but occurs wherever there is material for it to attack. The most important predisposing cause is age which

materially influences its occurrence. It is rarest in old age, not frequent in childhood. And most common between fifteen and forty. Its seldom occurrence after the fortieth year has been reached is supposed to be due to the almost entire absence of the glands of Peyer at that period of life.

Diagnosis —

The two essential fevers from which typhoid is to be discriminated are remittent and typhus. From remittent, typhoid is known by its much longer premonitory stage, by its more protracted course

typal sense of vomiting and pain in back, by its specific skin eruption and characteristic abdominal symptoms. Here typhus the distinguishing symptoms are as follows. Absence of epistaxis and bronchial cough in typhus, their existence in typhoid. A confined state of the bowels in typhus, a relaxed condition of same in typhoid. Miliary eruption in typhus, rose-colored spots in typhoid. Absence of tenderness on pressure in typhus its existence in typhoid. The breaking out of typhus in a jail, ship or large

school with causation quite obvious while typhoid may occur anywhere.

Prognosis.

One death in fifteen cases will represent its average mortality. A fatal result is not often due to the severity of the disease but is generally attributable to its complications. It should always be guarded in our prognosis on account of the liability of peritonitis to ensue from perforation of the coats of the intestine.

Treatment.

Expectant treatment, aided by good

hygienic conditions, has been found by experience to be the best. As the disease is self-limiting in its nature, any attempt to cut it short would prove utterly futile. As respects depletory measures, the practitioner in attendance, should never think of resorting to such, as the disease itself is excessively depletory in its nature. Instead of a lowering treatment, the strength of the patient must be husbanded in every possible way from the beginning. It is essential, from the commencement of an attack, to administer a nutritious and assimilable diet, consisting of liquids, such

as milk, beef tea or chicken broth;
And these should be given at regular
intervals, in the requisite quantity,
And should not be neglected during the
night. Alcoholic stimulants are
indicated when there is a feeble
state of the circulation, as shown
by the pulse connected with the
degree of force of the first sound of
the heart. Alcohol acts greatly for
good in this disease if administered
properly. As it is absorbed, without
undergoing digestion, it does not
pass down over the diseased glands
to become a source of irritation, while
milk, beef tea & which are imperfectly
digested on account of the amount of the

secretions of the ~~[illegible]~~ various digestive organs, pass down over them in an undigested form and thus greatly tend to incite or aggravate the intestinal symptoms. To lower temperature, which is morbidly increased, we may invoke the antipyretic influence of quinia which is especially beneficial in those cases of typhoid fever occurring in malarial districts, and which have received the malarial stamp, for then is brought into play its antiperiodic powers as well. We may allay the dryness and heat of the surface by sponging the patient over with tepid whiskey & water. Another means employed to lessen the

the morbid heat, is to immerse the patient in a bath of about 93° and then gradually cool it down 15° or 20°. In the first few days of an attack, if the bowels be costive, we may give a teaspoonful of castor oil or some other laxative. While the temperature is very high, we may give a tablespoonful of Spirits mindereri every two or three hours with the view of promoting the freedom of the secretion of the skin. When the patient lies dozing, perhaps muttering, and his sleep evidently not refreshing, we may administer chloral hydrate which not only produces the desired hypnotic

effect, but indirectly reduces the supposed alkalinity of the blood in this disease by using up a certain amount of it to be converted into chloroform, and at the same time its antipyretic influence is called into action. Among the therapeutical agents used in the treatment of this disease there is not one which fulfills so many important indications as opium. In that condition known as vigil coma, in which the patient lies in a low muttering delirium, stimulating doses of opium surpass the action of any other drug. Also, when the symptomatic diarrhoea becomes so profuse as to be greatly exhausting

one fourth of a grain of opium combined with about three grains of tannic acid or the same amount combined with a fourth of a grain of sulphate of copper will generally reduce it. Again when the symptoms of peritonitis from perforation of the intestine present themselves it is our sheet anchor of safety. Excessive tympanitis may be relieved by the use of enemata containing turpentine or ~~gr~~ asafoetida. Hemorrhage from the bowels may be checked by the hypodermic injection of ergotin, assisted by the constant sucking of ice together with an application of same ~~of~~ over right iliac region.

As to mitigating the affection of the glands of Peyer, only palliative treatment seems to be indicated. In ordinary mild cases they need no treatment. If, after the tenth or thirteenth day, defervescence does not take place, there still continues great abdominal tenderness and a dry tongue, we may give about ten drops of the oil of turpentine three or four times daily, in mucilage.

1880 - '81

Medical Jurisprudence

A of

Essays In Obstetrics.

Horace M. Simmons.

University of Maryland.

There is, perhaps, no branch
the curriculum of the medical
[illegible]
attention to details than that of Cu-
[illegible]
[illegible]
of the young practitioner. Cut ac-
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
is seeking. Such has been the du-
ty of many a young graduate.
[illegible]
[illegible]
[illegible]

[illegible] to outline the unreasonable judgments pro[illegible] against [illegible]

[illegible] performance of duty [illegible] perplexities, [illegible]

[illegible] highest [illegible]
t, the [illegible] of the [illegible] of t.
He important, then, that the t[illegible]
[illegible] having [illegible] also [illegible]
to familiar with all that is [illegible]
[illegible]ded in an adequate knowledge
of that which pertains to the [illegible]
arious and important [illegible] of
his profession.

That "midwifery is bad," will be admitted by all. But this oft quoted [illegible] is [illegible] applied when used indiscriminately to designate the multitude of mishaps that may arise in the practice of the obstetric art. For which many of the mishaps of midwifery are [illegible]

to mistaken manipulation, or to
rash interference of the practitioner,
it is to be lamented that not a few
be attributed to the utter incompetency
of the medical attendant, whose crude
efforts portray a positive lack of know-
edge, both scientific & experimental,
in the principles which he is
endeavoring to practice. The author
cites many instances of disasters which
have occurred under such deplora-
ble circumstances as numerous
and appalling.

In the early months of my
practice I was disposed to treat
most of diseases of the eye as
occurred, in which the idea

[illegible] observed in cases of normal pregnancy. Such [illegible] [illegible] attention [illegible], and [illegible] to be [illegible] either of congenital malformation, or of [illegible] [illegible] upon [illegible].

The uterus in the early [illegible] of pregnancy is not [illegible] displaced to one or other side, as in retroflexion and retroversion, [illegible] other hand [illegible] for [illegible] cyst; and the practitioner, [illegible] at having [illegible] the [illegible] operation in such cases, was [illegible] to the [illegible], but [illegible] the [illegible] after [illegible] [illegible] [illegible] by his meddling.

but it must be admitted that the differential diagnosis in certain cases is extremely difficult, if often impossible: as illustrated by many curious instances which have occurred in the history of eminent diagnosticians. For example, a famous physician once sent a patient to a fellow physician with the diagnosis of an unilocular cyst, stating that the woman was an admirable subject for an operation. But on further examination she was found just ready to give birth to a child. It is difficult to account for such a blunder, for no doubt it could easily have been avoided had a careful examination

[illegible] through the method of [illegible] of [illegible]. Dugès [illegible] a singular instance in which Nægelé and six or seven of the most skilful obstetricians of Paris, agreed in the existence of extra-uterine pregnancy and had in consultation resolved on operation, when the case terminated by abortion, and proved to be a natural pregnancy.

The use of the uterine sound would be a valuable aid in the diagnosis of many conditions, and it is not necessarily contraindicated in any case where even the remotest suspicions of pregnancy exist.

though a degree of great ability must be employed with the case. In the hands of the experienced practitioner its use is but rarely denied, and in the hands of the inexperienced it should never be forced. Many have been led into the fatal error of using the sound at the solicitation of the patient, whose endeavor was to mislead the physician, and thus prevent its utterance, inadvertently misjudging for actual condition.

Of all the phenomena of pregnancy which are likely to give rise to error, perhaps the most doubtful is the pulsation known as fluttering

pregnancy, in which the multiplicity of pregnancy never thought of, simulated that both patient & practitioner may easily be deceived. The abdomen may become prominent, the areola altered, menstruation arrested, and apparent fœtal motions felt; the patient also generally fancies that she suffers from the usual sympathetic disorders of pregnancy. I feel that an history of the more apparent symptoms of pregnancy which may not be present in twin cases of this kind. I therefore, put what would be termed mal-terms of history, if the phenomena of labor may supervene,

accompanied by [illegible] pain and
costiveness or force of frequency until
the actual condition is determined.
Such mistakes, however, will only
likely to happen when the state-
ments of the patient have been
received without further inquiry.
When a correct accurate examina-
tion has been made (and in this
we should not forget the value
of chloroform), error is a de-
gree impossible.

The peculiar conditions of
a pregnant condition, a feeling
of other nature, should at intervals be
in pregnancy, may give rise to a
[illegible] in diagnosis from ill-[illegible]

to the scope of lines [illegible], for on being summoned to a case in which watery discharge has occurred for the first time, we are naturally apt to suppose that the membranes have ruptured, & that labor is imminent. But is there any very certain means of deciding if this be so. Even if the membranes be ruptured, there will be no indication for interference unless labor has actually commenced; & the repetition of the discharge & the continuance of the pregnancy will soon clear up the diagnosis. Hydrorrhœa, although apt to alarm the patient, need not give rise to any anxiety."

On the management of the pregnant

women before delivery, it has sometimes occurred that labor was prematurely determined by the administration of two violent purgatives given to relieve the constipation resulting from pressure upon the rectum by the gravid uterus. To obviate such an event, it is only necessary to prescribe an occasional gentle aperient.

Unnatural presentations frequently lead the young practitioner into error and his unwise interference often tends to increase the complication. In pelvic presentation, no interference is necessary until the birth of the breech. If the young practitioner has learned the value of patience, he will be spared the evils of meddling.

will resist the temptation to make
traction on the partially born trunk,
and thus avoid the danger of pro-
ducing extension of the arms above
the head, and subsequently of the
occiput on the spine. Should such
prolapsus occur, the membranes
should be preserved intact instead of
being ruptured as soon as the os
is dilated. This is, however, one
class of cases in which scientific
and skillful action on the part of
the medical attendant is necessary
to the safety of the patient, not-
withstanding the contrary opinion of
those who formerly taught that noth-
ing should be done until [illegible]

[illegible] very [illegible] chance of effecting delivery. At most a cross-step could not be [illegible], and fortunately for the welfare of humanity, professional opinion on this point has been transformed into the more rational conclusion — and the one which is now recognized by the most experienced teachers — that, when one or two crises are passed that the natural efforts are failing and are unlikely to effect delivery, except at the cost of long delay, it is far better to take an earlier than late, and thus prevent the occurrence of the serious symptoms accompanying protracted labor. At it is just here that we see the [illegible]

the [illegible], that [illegible] [illegible] than cure. Surely [illegible] but the [illegible] scientific and ignorant could be led into error in the face of this conviction. "Why may I ask, should we permit a pellagrous creature to undergo years of torture when we have the means of relieving them within our reach?" [illegible] The benefits of timely interference will be apparent when we realize the fact that to neglect such precaution is to incur the risks of that formidable train of symptoms which we find described by Blackie in the following language: — "The pulse begins to rise, the skin to become hot and dry, the patient to be restless and irritable. The tongue [illegible]

delay and the more vigorous the efforts of the uterus to overcome the obstacle, the more serious does the state of the patient become. The tongue is loaded with fur, and, in the worst cases, dry and black, nausea and vomiting often becomes marked, the vagina feels hot and dry, the ordinary abundant mucus secretion being absent; in severe cases it may be much swollen, and if the presenting part be firmly impacted as through may occur, forms. Should the patient still remain undelivered all these symptoms become greatly intensified; the vomiting is incessant, the pulse is rapid & almost imperceptible, low, wandering &

limum superveneo, and the patient ultimately dies with all the worst indications of profound irritation and exhaustion."

Unquestionably the most fruitful period for mishaps, and the one which is fraught with the most egregious errors, is that which comprises the third stage of labor. Here this more than in any other do we realize the importance of skillful management. Admitting that labor is a strictly physiological process, there can be no doubt that the majority of cases could be terminated by the unaided efforts of the organs of parturition alone, the necessity for interposition on the part of the accoucheur being reduced to

exceptional cases. If this fact were duly appreciated by the younger members of the profession, the evils arising from undue interference would be reduced to a minimum, and the errors of "meddlesome midwifery" would no longer find a place in the annals of obstetrics. The important objects to be attained in this stage, are the expulsion of the placenta and the promotion of uterine contraction. These being secured, the dangers of post partum hemorrhage will seldom arise. This is a point of extreme importance, for it will be admitted by all who are familiar with the process of parturition, that hemorrhage occurring in the third stage of

labor is one of the most trying as well as most frequent and precious of midwifery. Hence the necessity of being thoroughly acquainted with the causes which operate in its production, the means employed in its prevention, and its management when it has arisen. Many of the calamities attending the third stage of labor are due to the adoption of two erroneous principles, as commonly taught; namely, that of trying on the child as a means of producing uterine contraction by applying it before the expulsion of the placenta; and secondly, that traction on the cord should be used as a means of not

at once the placenta; when the uterus itself should be made to expel the after birth. The long list of evil consequences attendant upon these two methods of practice are sufficiently appalling to condemn them as unscientific and dangerous. They are both productive of great mischief, and consequently should not be practiced by the educated physician. In the former case, when the bandage is applied too soon, the uterus may relax under it, and become filled with clots without the practitioner knowing anything about it, whereas this cannot take place so long as the first method, of pushing the uterus back

in the hollow of the hand as it contracts and descends, is practised. Besides the accidents which commonly result from traction on the cord, & the increased liabilities to post partum hemorrhage, another, though fortunately very rare, mishap, is inversion of the uterus, which consists essentially in the enlarged and empty organ being turned inside out, either partially or entirely. It may be produced either by traction on the cord the placenta being still adherent, or by improperly applied force on the fundus, which is subsequently converted into an more complete variety of inversion. A case is related in which the patient under [illegible]

a medical man, but was attended by a midwife, who, after the birth of the child, pulled on the cord, while the patient herself clasped her hands and pushed down her abdomen, at the same time straining forcibly, when the uterus became inverted, and the patient died of hemorrhage before assistance could be procured. Another interesting case, which occurred in the practice of Dr. Harting, Trofia, is recorded in the American Journal of Obstetrics. He was called to see a primipara, who, after the easy delivery of a living child, had fallen into a state of collapse. He found the patient extremely anemic, with cold a

tremities, pulse hardly perceptible. She was told that after the child was born the midwife tried to remove the placenta by traction on the cord, which, however, broke, so that the midwife introduced her hand into the vagina, and brought out the placenta. Yet it seemed to be too small, and since the rather free flow of blood continued, she forced in her hand once more, in order to remove the rest of the after-birth. To the left side she found a physical body that was movable, which she pulled out. At the same time the patient complained of a severe and sharp pain in the left side, and continued to lose blood. Now

this tumor was shown to the doctor, he at first might believed it to be a sarcomatous growth, or fibromyoma. On closer examination, however, he found that it was the firmly contracted uterus. Other instances are recorded, where the midwives are trying to remove the placenta, drew it out through the vulva, and cut it off with scissors! Surely such hazardous proceedings would hardly be indulged in by the prudent practitioner, even though his knowledge of the laws of parturition be very indifferent, and his record fraught with many less serious incongruities.

In the foregoing pages it has been our aim to point out a few of the errors which have unfortunately marred the records of midwifery. To devote even a brief consideration to the multifarious circumstances under which they have arisen, would necessarily extend our researches throughout the experience of every practitioner and consequently transcend the limits of the few pages which we devote to the subject. While the majority may justly be ascribed to the ignorance or mistaken of the medical man, some have even been noted in the practice of the most accomplished. If, then, such misfortunes occasionally

befall the skillful and experienced practitioner, who has learned the how, when and why of operative procedure, will a lamentable array of statistics must be presented by those who have not acquired that degree of skill & proficiency which is indispensable to the success of the obstetrician, and, above all, to the welfare of humankind!

Horace Sibley Simmons.

A Thesis on Diphtheria.
Respectfully submitted
to the Faculty of Physic
of the
University of Maryland.
by
William Ludlow James

Feb 11th 1881.

Diphtheria

1

An inflammation of certain mucous membranes of the body, hence, Diphtheria: a membrane. The membranes most susceptible to this disease are those of the larynx, pharynx, trachea, tonsils & nares.

There is still uncertainty as to the cause of this disease. Two theories prevail at present — one that it is a form of disease with a bacteriotic basis, the other, that it is [illegible]

it is usually an affection of the throat, the palate becoming ulcerated, preventing the absorption of nutriment from the influence and thus it frequently is not epidemic disease or that it occurs most frequently in children than in adults and in two forms, mild & malignant.

Symptoms — In the mild form of the disease, generally, the first symp-

tom complained of is sore throat, which on examination, we will find it be congested with heat & there on the pharynx or tonsils a small patch of false membrane. It may be accompanied by fever or it may not. Sometimes the fever comes on before or at same time with feeling of soreness of the throat. & again, the sore throat will be the first symptom no fever appear-

ing for several days
The false membrane
extends over more and
more of the throat
until finally scarce-
ly any part of the throat can
be seen which is not
covered with the mem-
brane. With this there
may be a swelling of
the glands of the neck
or, it may be absent
For the first few days
of the disease the pa-
tient will experience
some prostration, feel
sick o depressed. he be

down, although there are many exceptions to this rule, attending to their daily duties and running about for several days after commencement of the attack without much inconvenience. If the fever be present at beginning it will continue, or, if not, about fourth or fifth day will begin to develop itself. About this time the danger of the extension of the membrane to the Larynx is to be feared

Then the patients condition becomes much worse, the breathing more difficult prostration greater, drowsiness or delirium may ensue. If the disease does not extend to the larynx. about the end of a week the inflammation seems to have run its course. the membrane begins to come away, the mucus glands to flow very profusely the patient will almost constantly be coughing & spitting up

the mucus and false membrane. After this the throat will clear off & the patient get better although it may be several weeks before he is fairly convalescent. The false membrane may extend to the larynx & the patient may have the dyspnoea, be very much prostrated, yet succeed in breathing right well, until finally the membrane becomes detached is

coughed up & the patient proceeds to a recovery. When it proves fatal, the dyspnoea is great, patient rolling & grasping at the bedclothes & air in his agony. The brain symptoms become more marked & finally death ensues. The symptoms of the malignant forms of the disease are somewhat different. They are usually ushered in by rigors followed by fever. In a very short time

the throat is covered with the false membrane, the glands of the neck may swell. Urine become scanty becomes drowsy, Coma and death. In this form the patient gets worse from hour to hour without the least abatement. In another variety of the malignant form, it comes on slowly, with only a feeling of indisposition, no fever attending. complain

ing of no soreness of the throat. neither do we on examination see anything Except perhaps a slight congestion After a while the the Neck will be swollen. yet the throat does not seem to bother the patient any. then a brownish fluid begins to run from the nose or mouth The hearts action becomes very feeble

the patient is very much depressed & finally dies & generally dies suddenly. The peculiarity of this form is that there is no fever attending & can see no membrane. yet it (the membrane) is there but so small as not to have been perceived.

<u>Prognosis</u> – This depends largely on the variety of the disease

Where the Larynx is involved the majority of the Cases die but even in these cases recovery often takes place for it is always possible for the membrane to become detached & coughed up before the Dyspnoea has become so great as to cause death. Where only the Pharynx and Tonsils are involved the prognosis is more

favorable yet at no time can we be certain for in all the varieties of the disease both in mild and malignant forms there is always danger of death from failure of the hearts action. This danger in is to be feared just at the time convalescence has set in when to all appearances patient is safely tided over the disease

Even in those very mild diseases or cases rather where patient at no time was confined to bed death from syncope is to be feared. Then too the prognosis depends if an Epidemic is prevailing upon its nature If on the increase there are generally more malignant cases. consequently an unfavorable prognosis. On the decrease the are generally milder - the prognosis more favor-

able. At any time, in any form Diphtheria is a very dangerous disease.
Convalescence is slow in this disease lasting for weeks & sometimes for months after both the constitutional and local symptoms have disappeared. The general health is very poor patient is anemic and has little or no appetite.

Treatment – The most common form in the general treatment of the disease is the use of the Tincture of the Chloride of Iron, Chlorate of Potash, with alcoholic stimulants. From five to twenty drops of the Tincture, according to the age is given alternately; every hour with from ten to thirty grains of the Potash, meanwhile

giving stimulants. Then there is the Alcoholic treatment where alcohol is given not merely to sustain the patient but in such quantities to get its constitutional effects. To an Adult may be given as much as an ounce every hour to a child in proportion. This is a favorite treatment with many Physicians and often proves successful. The Benzoate

of Soda has been used with considerable success. in doses of from ten to forty grains every two or three hours Many other remedies are used but less. frequently than those mentioned. Emetics are frequently used to relieve Dyspnoea. In the local treatment of this disease quite a number of agents are employed. either by means of the brush. the

spray, or as gargles
The Tincture of the
Chloride of Iron, pow-
dered Alum, Sulphur
Bromine, Hydrate Chloral
&c, are all used as
local applications,
Either by spray or brush
The inhalation of the
vapor of hot water
or of lime water of-
ten proves beneficial
The strong mineral
acids so much used
formerly have fallen
into disuse, the Tinc-
ture of Iron and Dobe-

tions of Carbolic and Salicylic Acids are the agents most frequently used at present. To get their full effects they should be used every hour or two by spray or brush. Tracheotomy is our last resort, but is seldom resorted to as experience teaches us it is almost useless as the disease still progresses and the patient dies.

Wm Dudley James

Chloroform

By

R. J. Wilson.

146 Park Ave.

Discovery.

Discoveries generally have long histories. They may startle with their apparent suddenness, but in reality, they are the results of ages of patient toil, of efforts often misdirected, of lessons imperfectly taught & of experiences insufficiently recorded. Most of the great discoveries which have been of benefit to the human race have passed through an infancy which has been obscure, before attaining their perfect strength. For the law of gravitation was taught, not by the falling of an apple, but by facts distributed throughout long ages. So also with regard to the discovery of the

circulation of the blood. Erasistratus taught that the arteries of the body were filled with air. Galen going a little farther, proved that they contained blood and not air, but Galen it is shown invested his thought with many errors. Step by step Servetus, Vesalius, Realdo Columbus and others attained to a more complete knowledge. Errors were thrown aside, until at last there was built up in the mind of Harvey the great fact of the circulation. It was known to the ancients that in certain states of the system, sensibility was wholly or partially

destroyed; for their observations upon intoxication, also Epilepsy & Catalepsy and the effect of certain medicinal substances, taught them this. They were acquainted with the power of medicines to relieve pain or assuage grief. For in the Odyssey it is told us, that Helen drugged the draught that she offered to Menelaus & his friend. We are told also that the ancient Egyptians used many drugs for producing the state of intoxication or ecstacy, which were taken either as potions or electuaries. Of which may be mentioned various preparations of Indian hemp (Cannabis Indica) and

the juice also of the poppy (the meconium of the Greeks). The effects of these preparations of Indian hemp I would here like to place. First they cause exhilaration; the men who have swallowed them become talkative, sing love songs, & laugh; then they are rendered delirious & fight & mutilate each other. This stage lasts an hour, then follows a stage of wild excitement the characteristic of which is violent anger. Lastly is a stage of grief, during which they weep & lament: then they return to normal health. Such is said to have been the enjoyment of the Egyptians in their "convivial feasts." At

the time of the Roman Empire we find that they employed means for mitigating the pain of surgical operations. Pliny relates how that a kind of marble obtained from Memphis was powdered, mixed with vinegar & spread upon the parts, to be cut or cauterized, the latter being a most popular means by which they operated. The Chinese surgeons of the 3d century were accustomed to use Indian hemp, for the purpose of inducing insensibility, thus relieving the exciting pain & to annul the horrors if we may so term it, of an operation. They gave the medicine by the stomach and it was

also ignited & the flames inhaled, for the inhalation of narcotic vapors was practiced at a very early period. The ancient Scythians used to breathe the fumes of burning hemp, just as the Hindoos do now, just the Chinese smoke opium. The lethargy produced in the Chinese, by the smoking of Opium may very readily have suggested to their surgeons its use in preventing pain during their operations. The custom of inhalation was very widely spread also among the barbarians of the shores of the Caspian sea, who are said to have lit their fires of fruits & seeds, sat round breathing the fumes till they became intoxicated;

among the Indian tribes, who threw tobacco on their fires during religious ceremonies to transport them into a state of ecstasy; among the civilized nations, for the priestesses at Delphi to become half intoxicated by the fumes of narcotic plants before delivering the oracles. In the 12th century a Tuscan described how that suffering could be mitigated by the patient being given a narcotic vapor to inhale. Albertus Magnus, in the 13th century is thought to have known something of the use of ether as an anaesthetic, for he has given a recipe for its preparation. Porta, of Naples in the 16th century mentions a soporific

medicine, which when applied to the nostrils produced a profound sleep. It was found by Sir Humphrey Davy (Davy) that the inhalation of Nitrous oxide gas alleviated the pain of cutting a wisdom tooth, he therefore said that "as it was apparently capable of destroying physical pain, so it might probably be used with advantage during surgical operations". Pearson & Thornton used in the treatment of diseases of the chest the vapor of ether at this same time.

Chloroform was investigated by Dumas chemically in 1835. And in March, 1847, Flourens announced

to the Academy of Sciences of Paris certain observations on the anaesthetic powers of it upon animals. He considered it dangerous. And it was not until the memorable evening, as it is called, of November, 4th 1847, that Dr Simpson of Edinburgh, determined on trying a hitherto discarded, heavy fluid, Chloroform. Dr Miller gives a graphic account of this birth of Chloroform. Drs Simpson, Keith, & Duncan sat each with a tumbler in hand, in the tumbler a napkin. Chloroform being poured upon each napkin, all inhaled patiently & waited for something to turn up. After a time, Dr Simpson drowsy as he was,

became convinced that something had turned up, for he heard Dr Duncan snoring, & Dr Keith kicking about in an inelegant manner. All these effects were made manifest in a very short time & the experimenters all agreed that Chloroform was far more agreeable than ether. By this means then did Dr Simpson establish an agent far quicker in operation & far more pleasant than ether. And it was not long after this that the fact was clearly demonstrated, by an operation being performed with the patient under the influence of Chloroform. The operation was for the removal of a diseased portion of bone

of the forearm, which was excised absolutely without pain.

Its Influence -

Its use soon became general, for pain was much more readily & speedily abolished by its use, than by other. At the present time surgeons and physicians are divided in their opinion, as to which is the best & safest. It had not been employed more than 3 or 4 mo. when a death occurred very soon after others followed. After further investigation it was found that its tendency, if insufficiently diluted with air, was invariably to cause death; and, therefore, that a sufficient dilution of the vapor

was a "sine qua non". Its use nevertheless spread throughout the civilized world. In Italy & Austria it was diluted with alcohol or Ether. During the Crimean War, it was used almost universally in the French & English camps. And we are told that no accident occurred throughout the French-Eastern campaign, though it was used 30,000 times or more. In the Crimea alone it was given more than 20,000 times, according to M. Scrive. In the English ranks they were not so fortunate - one case being fatal from the use of impure chloroform, & one death from shock. During the French-Italian war, it was used as extensively as in the Crimea. And in

our own last war, chloroform was the principal anaesthetic used on both sides. On the Federal side it was given in no less than 80,000 cases with only 7 fatal results. It has been employed in midwifery practice over 50,000 times or more, in London alone, and I think I am correct in saying without a single death from its use.
It is told of Dessault, that just as he was once about to perform Lithotomy he traced a line on the skin of his patient with his finger, when the man gave a shriek & fell over dead. A similar result occurred when Chopart was about to perform a simple operation.
The first case in which Dr Simpson

proposed to try the effects of it, was upon a boy, upon whom he was to cut for stone. When just as the preliminaries were being arranged the boy died. Not a whiff of it had been given. If it had, its birth would have been a death. Similar cases are reported, where if it had been administered, it would have been said to have caused the death. It is not very reasonable to suppose that such cases have swelled the ranks of the supposed deaths from its use, some were rather deaths from shock, fright, or apprehension. Chloroform has beyond a doubt, decreased the danger of amputation, and anaesthetics generally have in no degree increased the rate of mortality.

In cases of disease in which amputations have been performed, there can be no doubt that the results have been more favorable since the introduction of anaesthesia. I will here mention the two causes which combine to produce this result. In the first place, persons more readily now submit to operations, they are not so diseased when operations are performed, as formerly. For the surgeon can generally select his time. The beneficent influence of chloroform allows of surgical interferance at a more hopeful time. The terrors & pain of surgery being abolished, the subsequent depression is lessened and recovery is promoted. Manipulations of the surgeon upon the

structure is better borne, at the time when the sense of pain is annulled. For the handling of certain tissues — tendonous ones especially — will in sensitive patients frequently induce alarming syncope. The influence of anaesthesia on the progress of surgery has been wonderful. For in our present time, operations are performed for the removal of diseased bone, whereas in times past the limb would have been sacrificed or the patient left unrelieved. We may proudly say, operations have grown out of the practice of anaesthesia — such as the removal of Ovarian tumors from women, who in times past had to

succumb to a sure & speedy death.
And also Oophorectomy. Many are
the instances which can be mentioned
in which life has been rendered
worth living for, by its use.
From the considerations I have here
placed, I think the following conclusions
may be drawn: that though Chloroform
has caused death, it is not its fatal
power which ~~may at~~ should at first sight
appear; ~~and that~~ but if by utilizing our
increased knowledge & exercising
an increased care, we may deprive
it of nearly all the terrors which are
said to accompany its use.
The immense preponderance of its
influence for good, has been a

direct preserver of human life.
Prof. Chisolm: "Under careful administration, deaths from its use must be among the rarest of accidents, - so very rare that it should not be seriously considered.

Its Chemistry

It is a colorless liquid, with an aromatic & penetrating smell. Has a sweet taste. And produces a sense of warmth by its caustic action upon the tongue. It is about one & a half times as heavy as water, but a drop of it is of so small a volume that, strange as it may seem, it has only half the weight of a drop of water. Specific gravity 1.48 or 1.45 - .49, & it boils at 142°.

It a solvent of fats & oils, of a large number of the alkaloids, of india-rubber & gutta-percha & of the resins, but has a very slight solvent action upon sulphur & phosphorus. It dissolves very readily iodine, forming a beautiful deep violet solution. It is miscible with alcohol and sulphuric ether in all proportions.
The method of its manufacture, is that of Soubeiran, modified by Huraut Montillard, & Larocque. Its essential point is the distillation of rectified spirit with water & chloride of lime, but the addition of quick-lime renders the product more abundant & more pure. Chloride Lime (CaOCl) 130 lbs, ordinary lime 7 lbs which with the addition of

water are formed into a paste, & placed in a large earthenware alembic. After stirring for some time, more water & 25 lbs of rectified spirit are added, care being taken that the still is only half full, the head is well luted, & a gentle steam heat applied. An impure chloroform distills over, together with a lighter fluid; the former is separated by decantation, & the latter is returned to the alembic together with some of the primary ingredients. After several repetitions of this process, the resulting chloroform, still impure, is poured into an ordinary still with five times its weight of distilled water, & a little quick lime. The heat of a water bath is applied,

& the resulting product, which consists of water & chloroform is collected. For further purification the chloroform should be thoroughly washed with water, then shaken with a solution of carbonate of soda to remove any free chlorine; finally, the chloroform, being separated, should be redistilled with a little dry chloride of calcium. There are other methods of making it on a less extensive scale, but I do not think it necessary that they should here be mentioned. It is of the greatest importance that we should use a perfectly pure article of chloroform, that we should dose, cannot be

overrated, for sometimes an impure article is supplied for the purpose of anaesthesia. In several cases in which death has resulted, a subsequent examination showed that an impure article had been given. The Adulterations & Impurities of it, may be divided into three classes.

I. Such as alcohol or ether, which reduce its strength.

II Methyl-compounds which result from methylated, instead of rectified spirit being employed in the manufacture.

III. The products of decomposition.

I. Alcohol is detected by making a solution of gr ij of Bichromate of Potassium in ℥i of strong sulphuric acid. Put a little of

this test liquid in a test-tube, & add an equal quantity of the suspected chloroform. Shake, & if a small quantity be present, the change from yellow color to green is not seen for several minutes; but if considerable, the change is instantaneous. This is a very delicate test & is said to detect gr. 2½ alcohol to the ℥j. Lethebyʼs test is said to be the simplest. Add a drop or two of the suspected chloroform to white of egg. If alcohol is present, the albumen is coagulated, but if chloroform is pure, no change results. It will detect between 2-3 per cent. of alcohol. Ether - can be told by its smell, & by the tests for alcohol. And also, by adding to the etherized-chloroform an aqueous solution of iodine, the globule

which sinks becomes colored a dull red. If the chloroform is pure, the drop is perfectly translucent, of a violet or amethyst color (Berthon).

II. The compounds of methyl are among the most disagreeable & probably dangerous contaminations. For they cause a suffocative feeling, nausea, throbbing headache, & prostration. The chloroform made from methylated spirit, is used for photographic purposes.

Test for Methyl Compounds.— Very strong sulphuric acid becomes black when mixed with chloroform containing them.

III. This division is most important, because the chlorine products of

decomposition of chloroform constitute its gravest impurity. Time, air, light - the last most potently - dispose a variety of changes in chloroform, the formation of certain hydrochloro-carbons, hydrochloric acid & free chlorine. All of which are dangerous to be respired. Hydrochloric acid is discovered by its properties of reddening litmus and precipitating nitrate silver salts by its smell. Free chlorine - by odor & by its bleaching litmus. Vaporization of chloroform - Extremely volatile. Evaporates at all temperatures. A double proportion of chloroform can be given in hot weather or where the circumambient atmosphere is of a high temp.; to that in winter time, or when room is cold. For

evaporation being rapid, cold is produced in the process. Chloroform given on a sponge has been known to cause freezing of minute drops of water on its surface.

Effects of Inhalation - chloroform, as well as ether, causes not only loss of sensation, but also loss of motion, of perception, thought, consciousness & many of the manifold attributes of the nervous system. The distinctive sleep, therefore, commences - the narcosis. The senses become effected; frequently the sounds in the room are exaggerated in their intensity, the ticking of a clock becomes like the falling of a ponderous hammer. The surrounding objects become dim, as it were disclose in light, & then a veil enwraps them all.

There is very frequently still an exhilaration, a disposition to laugh, talk or sing. Dreams & fancies occur - temporary mental impressions which are effaced & forgotten when the narcosis is prolonged. A strange effect is the production of the phenomena of narcotic reminiscence. Events of the past life may be recalled, conversations may be repeated, & actions reproduced. A sailor will go through, with imaginary ship-mates, his nautical manoeuvres, reeing his sea songs. And I have read of a young girl, who throughout the whole course of a surgical operation, sang "Beautiful Star" correctly, word for word, note for note. Hymns & prayers are often given with distinct utterance. The sensibility,

however, if all surfaces does not disappear at same time. For the conjunctiva retains sensibility after the skin has lost it the sensitive portions of skin in which the nails are embedded, are the last to lose sensation. Just at the time that sensation is quite abolished, there occurs a muscular tremor, a struggling, slight, if the chloroform be given slowly; occasionally violent, if a large dose be given this convulsion indicates the severance from the central nervous power the muscles are then left to their own individual influences - to heat, electricity & the correlated force - which occasion contractility, this power being no longer co-ordinated by the brain. For we now know that this property

-a property which associates muscles together & makes a proper series of them act in concert - belongs not peculiarly to the cerebellum, but to the whole nervous system. Recovery from the effects of chloroform is generally simple & uncomplicated, exactly like the awakening from a deep sleep. There is the feeling of weariness & the desire to be left alone. And if the patients get on their feet, they reel & stagger like a drunken person, & the room appears to swim. Usually there is some nausea, which very soon passes off, & the patients are able to control their movements. Chloroform is eliminated from the system principally by the lungs. Every breath gets rid of it. Sometimes nature assists elimination by producing vomiting.

Chloroform must not be given soon after a meal, three or four hours should elapse between the meal & the operation, and the meal should be a very light one. The general action of it is the same in all animals, & follows a course similar in most points to that observed in the human subject. In all animals ~~the~~ the hind legs become paralyzed first. Birds can use their wings when their legs have ceased to support them. Reptiles can move with their anterior segments, when their hind parts are paralyzed. Recovery from its effects is followed by an increase of the heart's action, & is eliminated from the system by

the respiration & the skin, (almost entirely by the former) and is a slow process.

Method of Giving - there are different methods used in giving chloroform, but the best way is to have a cone of some stiff material, the apex being open so air can pass through, & the interior around its base lined with cotton. The cheapest & most convenient way is to make a cone of a towel, with some stiff paper inside of it, to make it keep its shape & prevent the waste of chloroform, by evaporation from the external surface of the towel.

Administration - Whatever method is used in its administration, great

care is necessary. On no account should it be given in the absence of a medical man, who should examine carefully into the condition of the patient's health. If the heart's action is feeble, there being any organic heart disease or organic disease of the lungs, he should be especially careful how he gives it. The patient should be in a recumbent position, & its administration should always be preceded with a diffusable stimulant, the most convenient being brandy or whisky. The clothing must not interfere with the free play of the chest in respiration. Encourage the patient always beforehand.

commence the inhalation gradually, using no force, if it can be avoided. The administrator should observe continually the countenance, pulse & respiration. They must receive the same attention - none more than others. Nor should he allow his mind to be distracted by the operation. In long operations the patient should not be profoundly narcotized the whole time, but should be allowed to return to partial consciousness from time to time. A free circulation of atmospheric air in the room, is very desirable during its administration.

In Practical Medicine - as a therapeutical

agent it may be described as a stimulant & narcotic. As a stimulant its action is simple & uncomplicated, differing in nowise from that of alcohol or ether or like bodies. Its action as a narcotic is compound. As the former, it increases force, subdues spasm relieves the slighter forms of pain. As the latter, it can abrogate pain, abolish all spasm, paralyze muscle, depress force. Means to be used in case of Impending Asphyxia - Should apnoea and asphyxia impend during its administration, withdraw the chloroform at once, draw out the tongue with forceps - give hypoder-mic injections of Brandy or Whiskey,

lower the head & raise the feet, admit freely into the room, a plenty of fresh air. The inhalation of two or three drops of the Nitrite of Amyl should be given. If these fail, artificial respiration should be used, warmth applied to the body & the galvanic battery should be employed.

Dr J. Péan of Paris - Uses chloroform exclusively as his anaesthetic. He doubts the greater safety of ether. Dr Péan, is a very deliberate operator. His procedures are often complicated and he undertakes & carries through the most difficult extirpations. He has never lost a patient from the effects of it. Since the introduction of chloroform, it has been the only anaesthetic used in Denmark & in all the many thousands of cases in which it has been used during the more than 30 yrs, which have elapsed since its introduction, there has only been a single case of death due to its use. Now Denmark

being so small a country, the population so dense, and everything so minutely supervised that it is very certain that there has been no other death from this cause.

Compliments

Chas. H. Gilman

Oct 2, 1891

A Thesis on
Empirisism
contributed by Chas. H. C.
Hoag to the Faculty
of the University of
Maryland for consider-
ation for the degree of
Doctor of Medicine.
Baltimore Feb 2, 1844.

Empiricism.

Until any branch of knowledge has attained the attitude of an exact science, its pursuit, following a distinct tract and a winding course, leading to indefinite, uncertain and unsatisfactory results, must necessarily be very inchoate and oscillating. Grant this to be true in regard to the natural sciences, biology, and mathematics in their infancy and even more ma-

true states, how much more ob-
ject will it be in the case
of "the heating of a red hot, solid
sphere, and of immaterial
matter, when unstable and
not stable forces engage our
attention; where also the
established facts recorded by
different conscientious and
capable observers have almost
been turned absolutely by other
men of equal ability and
character; and where Nature
seems often to contradict herself? Still, fellow-beings, we
are forced to admit that there
is nothing so unstable as

figures and facts!

The chemist and physicist in their experiments bringing immaterial substances, usually witness the same reactions and results; and from them they deduce invariable formulae and laws. But how many more unlikening circumstances entangle in a Theseus-like net the scientist when he comes in contact with animate matter! These forces as subtle, invisible, intangible and unrecognizable as odyle, electricity, gravitation and the radiant matter of Dr. Crooke

as to the physical, chemical affinity, molecular attraction and atoms as to the chemist, involve him in very bewildering intricacies. He enters upon a domain here where laws and formulae lose much of their value, and computations are almost vain; for disease is not comprehensible under any invariable symbols, but assumes protean guises. To understand the abnormal, he must know the normal, which are correct. If it be correct that disease are the laws' then laws must be

of critics. How many of them have accepted our tenets?

In medicine, unlike many other arts and sciences, a dispute which has once been settled is not always invariably relegated to the past: as for instance, in the controversy of venesection, and the use of mercury in constitutional syphilis. If it be true that medicine has few "lines of beauty" to which we may refer as infallible patterns, it is more the less certain that this broad promising field has been zealously cultivated and

with good results. Nature, however, is no easy, but hard to solution which we must now work out. We must not be of the boy of knowledge or clever go blindly to labor. Again, apart from circumstances difficulties and the fact of medicine being, above all others, a progressive science, there are many important influences having upon the pharmacy as influenced by disease. They are of a character which we must be on few other studies:

eg., we should, from good
digestion, habits of life, and
strong predisposition, age,
improved constitutions.
Another great factor to be eliminated in drawing conclusions from the results of our investigations and from these in the via naturae medicatrix, for there is no doubt the cures of ailments are too often associated to the best here, yet frequently have failed.

Consider again what an immense flood of light has been shed upon the

insist that prior to this event
[illegible] on, the [illegible] the empirical
[illegible] of what is to be
gained such a [illegible] of
the [illegible]?

In a [illegible] explanation
of the [illegible] [illegible] should be
a concise and accurate [illegible]
[illegible] [illegible] shall adopt
that given by the [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] and [illegible] [illegible]
as well as necessary.

Employing [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible], without [illegible]
[illegible] [illegible] [illegible]

[illegible]

[illegible]

[illegible]

[illegible] and [illegible] by the aid of [illegible] [illegible] in the trachea; characteristic parasites; [illegible] and [illegible], may be discussed in two views: I. Empiricism unnecessary, rational and defended; II. Empiricism unnecessary, irrational, in [illegible] and [illegible] [illegible] which dwelling thereof [illegible] shall [illegible] [illegible] [illegible]

unchristianized fanatics at
Kartabanny, which finds
no [illegible] in the world
[illegible], although the hardi-
hood to [illegible] the second
[illegible] of the [illegible]
[illegible] [illegible]

Pronouncing [illegible] to be
[illegible] disease of the [illegible]
[illegible], let us [illegible] [illegible]
[illegible] [illegible] the [illegible]
of a necessary [illegible]
and [illegible] emphatic-
[illegible] the [illegible] of [illegible]
[illegible] is an abuse me
and is so of necessity.
[illegible] the [illegible]

[illegible] philosophers and the other

provinces of modern inquiry, the

advance has been more

or less discontinuous.

While its progress in some

[illegible] checked and [illegible]

much without [illegible]

overthrown, of the same

[illegible] much. That every

their motion has been re-

tarded and [illegible]

[illegible] that the

[illegible]

[illegible] generation [illegible]

[illegible] theories or beliefs that

had held undisputed sway

were [illegible] after [illegible]

[illegible]

[illegible] the discovery [illegible]

[illegible]

wards, wandering Diaeno-
nia — the key-work of Dient-
[illegible] and [illegible]
more scientific and con-
[illegible]

[illegible]

carbonates and phosphates
[illegible] and [illegible] the presence of the [illegible] of many [illegible] diseases.

Cases in which the [illegible] attack, and we get [illegible] warning concerning the nature and management of inflammation. On the one hand we have the [illegible] [illegible] and [illegible] of the head, strongly contrasting from the [illegible] [illegible] heated; and on the other the [illegible] [illegible] and the father of numerous [illegible] [illegible] of strong

to establish the efficacy of preventing and eliminating measures. In such cases before us, what course should then be our guiding [illegible] of the professional [illegible] conditions, or relying on reference for the guide? Are there the sanitary [illegible] ought to be ready and [illegible] of the controversies here, decided to be settled upon a more rational and scientific basis. The physicists, bacteriologists and medical men, in the advocacy of their

[illegible] naturally, and [illegible] [illegible]
[illegible] through the [illegible] of
reasoning and belief. One
of these schemes has been
formed in [illegible] and [illegible]
accompanying [illegible] [illegible] that
for other than an empiric-
al management of slaves?
Are not the evils which
attended that treatment strong-
established to justify the prin-
ciple of it?
Look at the superstitions
which have been known to
have established amongst us.
I will cite that bug-bear
amalgamation. The [illegible] [illegible]

[illegible]

[illegible] school of [illegible]

[illegible] the [illegible]

[illegible] story it almost as clandestinely as he [illegible]

[illegible] called a green crime (?).

[illegible] how these incubuses of

[illegible]

[illegible] of medicine. In fact,

[illegible] can say that a [illegible]

[illegible]

[illegible]

[illegible] expected [illegible]

[illegible] the [illegible]

[illegible]

[illegible]

[illegible] Philippines and Secession of Alexandria, the dis-
[illegible]
[illegible]
Elevation and Thia-[illegible]
especially as to the use of
[illegible]
[illegible]
[illegible] Among the
[illegible] of the following
of [illegible] and [illegible]
[illegible] and [illegible] of
[illegible] the [illegible]

[illegible]
[illegible] of [illegible]
[illegible] [illegible]
Cavalier, Lawrence and
Lance. [illegible] [illegible]
[illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] so much decided.
What is the "higher metaphy-
sics of [illegible]"? [illegible]
[illegible] [illegible] [illegible]
great [illegible] [illegible]
[illegible] rationalism in meta-
physics [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]

[illegible]

plex of science" can find

satisfaction at the store na-

[illegible]

every day, "this here" [illegible]

[illegible]

[illegible]

[illegible] dishes was washed in

no a [illegible], for an [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] of small diseases; and

[illegible]

[illegible] be entitled. But now "the

day has passed when we

can be [illegible]

[illegible]

facts." In the absence, therefore, of [illegible]

[illegible]

theology, and seeing that we

[illegible] does not hold

[illegible] right to [illegible]

medicine ~~[illegible]~~ as it

[illegible]

left us. David Sent:
We are not yet unhap-
pily without knowledge
of the laws of creation
and of the
that influences in the
world are, we regard
great part of the fault
but as the result of a
[illegible] in the mind of
[illegible] of creation
[illegible] is [illegible]
[illegible] that [illegible]

[illegible]

[illegible]

[illegible] is [illegible] from [illegible]

[illegible] in medicine: [illegible]

[illegible] observation of clinical

[illegible]

[illegible] and [illegible] the most

complete knowledge of

the [illegible] of a disease will [illegible]

[illegible] [illegible]

[illegible]

[illegible]

[illegible] continuation of this fact,

[illegible]

[illegible] as [illegible] of the

[illegible]

[illegible] [illegible] the patho-
logical and pathological
notions of which were in-
[illegible] and [illegible] and
[illegible] [illegible].

It is well to be [illegible],
that the two blades of the
"scissors" of practical medi-
cine are diagnosis and
clinical proof. If one be
in that experience [illegible]
the [illegible] [illegible] [illegible]
around the availability of
that which is the treatment
of disease by [illegible] the
[illegible] [illegible] [illegible]
that [illegible] [illegible] [illegible]

[illegible]

[illegible]

[illegible] mania, which

[illegible] to [illegible], and, [illegible]

with what effervescing they

[illegible] [illegible]

Therapeutics! [illegible]

[illegible]

[illegible] (denounced

[illegible] [illegible]

[illegible] [illegible]

[illegible] least, the immediate

[illegible] of Jesus [illegible]

[illegible] the [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] the cause still con-

[illegible]

[illegible] not so tuberculosis. The

[illegible]

[illegible] The <u>[illegible]</u> causes

of [illegible]

[illegible]

[illegible]

[illegible] meningitis in a early stage, without [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

human system in health,
and in disease, and its ultimate structure. 6. An uncertain
and defined material medica,
as well as an extensive and
pharmacology. Stahl, Bichat,
Broussais, Pinel complained
in their days of the inability,
uncertainty and exaggeration
of medicine. Pinel
[illegible] death [illegible]

an endorsement of the best authorities. Thus there remains "confusion worse confounded." For the absence of a common or extended experience, and owing to the conflict of different authors the medical man is not unfrequently left entirely to his own resources and judgment.

Having set forth some of the causes leading to an empirical treatment, what shall be done to check the disadvantages of such a system is an important inquiry. There can be no *scientific* conclusions

[illegible] of [illegible]
of the profession to exert himself towards making it an exact science [illegible] the mite of contribution be ever so small. He should not hold himself back [illegible] of [illegible] because [illegible] in which every subtle cause has baffled the usually faithful [illegible]. It behoves all in earnest and conscientious [illegible] to place no study or effort to [illegible] all the conditions, if not the ultimate [illegible] of the

[illegible] as well as the world
of any kind of treatment.
It is true that theoretical
principles must give way
to absolutely necessary facts;
but the rules and the boundaries
for the employment and [illegible]
tion of any essential means
should be understood. Although
it is true the [illegible] is of se-
condary importance from the
fact the benefits following pu-
tting the practice in shade
are sufficiently [illegible]
ing with the rule of rec-
tion. Now humiliating it
must often be to have [illegible]

ulia almost solely upon meeting opinions not of national indication! Need there be wonder at the loss of respect by the People for a lack of consistency in the profession? The very direct terms of the author's conclusion and reasoning are demanded. He who fails to give his tribute in this respects is justly subjected unfairly, if not unfit, for all results.

Looking at the end desired of emphasizing a few remarks will be made. This kind of

[illegible] action is generally, if not always, the result of pure and unpardonable ignorance. How often a mistaken diagnosis, or rather diagnosis at all is, arising from natural stupidity, ignorance, carelessness, or indolence, or in fact is the cause of resulting evil.

Fancying himself an expert he administers at random the most terrificing remedies that is the consequence, failure and unnecessary and frequently premature death of success. Sometimes the patient, and not for the

profession, as it adds new
burdens [illegible] [illegible] encourag-
ing this dangerous [illegible], — for
on such treatment, which is the
happy exception, and not the
rule, vexation must follow quick-
ly to the detriment of the pro-
fession. The unhappy feature is
seeing that young men are
[illegible] [illegible] [illegible] at the foun-
dation of this new menace —
The administration of reme-
dies for unknown diseases
if they have any name and
really have that reference to
so liberal a profession, which
should even alone if

Even when a correct diagnosis has been made, a common plan of treatment will disappoint. We find here that the "method of all arts" presents a valuable point. She is in danger of becoming the prey of the sick-bed and empiricism. It is the duty of the regular practitioner to avoid, from the unscrupulous and dangerous, the hosts of enthusiasm, ignorance and rascality that have infested in all ages, the art of saving the life of humanity.

unqualified as to the latter the knowledge of business & the going on & business made out of the most humane of vocations.

How shall we divest the profession of this incubus? Raise the standard of medical education, of the Medical order. Exclude from the ranks all incompetent and the morally delinquent. The efficacy of the remedy is in this so difficult. It would [illegible] [illegible] together the profession. This would materially [illegible] from the most

and reasonably if we are
to be a people that have an
accumulation of wealth and
science, knowledge has been
made and that we have been
blessed, we should be still
constrained in contemplating
any possible disease. But we
have thought, would con-
vince him that such an
influence is fatal, I do hope
consider the many things
which conflict with the
theories that are now of
the physician. Again, he
lost the stage of the first
and another the disease we

considered insurable, which, we
no longer regard, in that
light, and the pursuit and
of happiness the acquisition
Science and the cultivation of
Therapeutics. Compare the good
influences on the left
hand of the scale in the last half century
and the effluence of surgery
for a little farther, and judge
the future by the past. Still and
we cannot generalize. It
is an exceptional case when we
start unknown things, we
get strength in the dark and
many things, and comfort

this authority, with no ignorance? Medicine will progress towards, for we need accurate pathology and pathology from effects correct physiology. The fundamental doctrine of medicine though high has not yet attained that maximum which it should have, and which I believe I is destined to reach. Etiology and pathogenesis are now gaining ground and with them must be combined well established and rational therapeutics. The cause should always be sought on

a guide to act, and if it
is time to act, we should
endeavor to secure it. All
available means to satisfy
the deficiency ought to be
used. Every faculty, every
power to be employed for, and if
our judgment can not be
relied upon, let it be
fortified, if and rationally
confirmed. Because the ac-
tion of remedies is not con-
sidered is no reason why
we should cease to employ
them when the evidence of
our senses shows our ability.
If we wait to see a

[illegible] of an estimation of the
nature and imperfect as
science would be exact
reckoned. What would we
do without any accurate
of potash, etc? In the words
of Macintosh: "Science should
suggest remedies for exper-
ience to prove; empiricism
may thus be made ration-
al, and rationalism in
medicine may become prac-
tical. Even if the experiment
must [illegible] certain set of
phenomena and a time is
fully justifiable on its
principles." And now although

Dr. Bennett, of Edinburgh, has predicted the "approaching downfall of empirical practice"; yet his co-labourer, Dr. Todd, of London, urged in his last words the importance of its efficacy in clinical research, and the philosophical medical historian, Renouard, seconding the efforts of Louis, the founder of the numerical method, and followed lately by the lamented Monneret, has foretold the coming triumph of rational empiricism or induction medicine. We may well believe that this prophecy will yet be fulfilled."

[Authorities quoted and not otherwise credited:— Dr. Henry Hartshorne, Essentials of the Principles and Practice of Medicine; members of the Faculty of the University of Maryland; other authors not known or recalled.]

= The =

Foundation of

Pathological Diagnosis

and

Rational Practice

Byron Clark
Pennsylvania

= Thesis =

School of Physic
Maryland University

1881

The Foundation of Pathology and Diagnosis

Medical and Surgical Authors, describe minutely, and with pains-taking Care, Nearly Four-hundred distinct Diseases, - with more than One-thousand Varieties, many of which take rank with the original disease, in detail of Etiology and diagnosis

The French, and German, make Many

finer distinctions, and increase the number into multiplied hundreds, giving each variety, a definite technical name, with attempts to differentiate diagnosis, and pathology.

Nine-tenths of these diseases, and varieties possess no diagnostic symptoms as a guide to certainty.—

Hence nosology appears to be limited only, by the ingenuity of the Pathologist, and is increasing with Chemical, and Micro-

-scopical investigations.
While the classification is varied, and extensive, the technicality is ar-
-bitrary, and the student, or practitioner is unable to see the point, much less appreciate the earnest effort of those who would be his guide, to successful practice.— Should I be able to simplify these seeming incongruities, to make plainer perplexity, to reach solid foundation, for more certain diagnosis, even if it be merely to-

draw the attention, of distinguished Medical Men to this Subject or if it makes the Subject clear enough, to induce Others to act upon the suggestions contained in this Short paper, will not have been written in vain, and its Object will be fully accomplished

The Author learned in his Profession, who has the tact, Ability, & Moral Courage, to adhere firmly to the dogmatism of Hippocrates,-

and from a few fundamental principles, produce an inductive, and logical classification of disease, - will do much for the scientific medicine of the future, of which, Bennett, Todd & Meymer has foretold the triumph, and which is summed up by, - Hartshorne as;

"Definite in its facts, clear in its indications, positive in its therapeutical measures; in accordance with a well ascertained

knowledge of the body in health, and disease

A Limited practical Experience has created a radical dogmatism, reducing this long list of differentiated pathology; Local, Constitutional, or Organic, into two Conditions, Common to Every form of abnormal Change occurring in the System.

These conditions absent, no form of disease can be produced, or reproduce itself, - Every Change from a normal Standard,

must and always does contain these two con-
-ditions.

This much in pathology is certain, positive, ~~and~~ constituting firm ground, from which every disease known, and every known variation, has its origin.

Hippocrates taught these facts. Galen endorsed them, while Virchow has given to the world his cell theory, which applied to pathology, confirms this dual con-
-dition, existing in every abnormal physical change.

The four-hundred known, and fully described diseases—

The more than one thousand varieties, resolve themselves, into six well known path-ological conditions, one or more of which always exists in the development, progress, and termination, of every disease—

The first pathological condition, from a normal standard of physi-ological integrity, is "Irritation"

i.e. an obstruction of a normal physical law, - an impairment of a functional activity, the slightest organic change, from any cause without, or within the Organism is an,

"Irritation."

The prick of the finest cambric needle.

The smallest incision by the minute bistoury, of your distinguished Oculist -

The introduction of a Bi-valve, by the Ac-

Complished Gynaecologist
The delicate manifes-
-tations, of approaching ma-
-ternity, described by the
Accoucheur.—
The amputation of
an important member,
by the skillful hand,
of the Operative Surgeon
The introduction of
the most minute trace,
of septic poison, or spe-
-cific virus, as described
by the Chair of Practice.
Constitutes, our first-
great pathological condition
"Irritation".

Irritation continued, has but one termination, this we denominate,

"Congestion".

By this term we not only mean venous congestion, arterial, lymphatic, and nervous congestion, but we condense the signification of the word, to every known form, of accumulation of cells, in any tissue possessing organization, — including all grades of abnormal action, within the limits of inflammation, —

from the highest state of congestion, illustrated by a capital operation in surgery, to the most ephemeral collection of cells, to the most harmless fatty aggregation, or the most static, and benign tumor.

This constitutes the second great pathological condition.

"Congestion".

Congestion static, passive, or active has but two terminations.

First. resolving proliferation

-Eration —,
Second
Inflamation, which has been characterized by conditions, coeval, with Medical Observations
This constitutes our third great pathological condition
"Inflamation"
possessing three termin-
-ations, one, or more of which always occur
First — resolving pro-
-liferation, or absorbtion,
Second Suppuration;
Third Gangrene.

In every disease, we must have Irritation, and Congestion, - we may have Inflamation, Suppuration, or Gangrene; and must have Resolution or Death claims a victim.

Therefore our Posology resolves itself, into five stages of disease, with two Terminal Conditions

first stage Irritation,
Second " Congestion,
Third " Inflamation,
fourth " Suppuration,
fifth " Gangrene,

Terminating in

Resolution, or Death.—

Let classification stop here.—

And instead of describing intermediate changes, as distinct diseases; refer only, to these stages, which are broad enough, for well marked differentiation, and diagnosis.

The Student, or Practitioner thus prepared, by positive conditions, can elaborate, the minute, investigations, of discriminating Patholo-

-gists; without impair-
-ing the land-marks of
successful diagnosis.

Returning to the cell
Theory of Virchow, with
the Proto-plasmic modi-
-fications of recent Sci-
-entists, we apparently Ex-
-plain the phenomena,
of organization, and
the origin of disease.

Organization being the
normal elective affinity,
and metamorphosis
of cells, from Protoplasm

Disease being the ab-
-normal action, of the elect

-ive affinity of cells, under the influence of nervous impressions.

With a knowledge of the fact, That characteristic tissues are cell metamorphosis, That these normal tissues enter largely into the development of numerous organs.

Then the pathological conditions, so far as diagnostic symptoms are concerned, cannot be arbitrary, or confusing.

Corresponding tissue in different organs, must

be susceptible, to the same abnormal changes, the same pathology, the same therapeutical agents.

That is to say a carbuncle on one part, passes through the same changes as on another.—

An ulcer develops similarly in one location, as in another

Gangrene is as characteristic at one extremity, as at another

These are every day observations, easily comprehended, and positively

diagnostic.

1st Irritative.
2d Congestive.
3rd Inflammatory.
4th Suppurative.
5th Gangrenous.
6th Resolution or death.

Remembering that all organization as a whole, or in parts, is developed from characteristic cells, and cell tissues, limited in number and readily recognized.

That these cells possess elective affinities, and from the large amount of Ma-

-terial going into the system, assimilate per-
-fectly what is needed, in the process of Or-
-ganic development.

That under abnormal influences, they constant-
-ly strive to regain their normal action.-

This remarkable Af-
-finity, and Election Ac-
-tion of cells, and all tissues, gives us the basis of most satisfactory, in-
-telligent, and successful Therapeutical results.-

As a student, it has

been my privilege to listen to a Therapeutist, who is a Philosopher, & rare ability in analyzing the action of remedies, and in recent lectures on the rationale, of our most important remedial agents fully demonstrated, while I applied, the elective affinity of cells, and cell tissues, to his admirable Philosophy.

This fact has received still further proof, by the investigations of modern Histologists.

and the recent brilliant lectures, on the physiology of the Brain and Nervous System, confirmed by demonstration, and argument, combined, that therapeutical agents, can and do act, only through the elective affinity of cells, and cell tissues.

These demonstrations, developed in the most happy manner, the proximate cause of all forms of disease.

By the practical application of this cell-

Election, we see clearly how local causes produce disease, How Septic poison is introduced and developed in the system, how specific virus, such contagion, penetrates, and develops into characteristic pathology.

To illustrate, a particle of Syphitic virus comes in contact with Electric cells, the affinity at once sets up abnormal action, Syphilis is the result.

Septic poison is wafted into the lungs, a cell of

Gray Nerve Matter, receives the impression, the Electric tissue accepts the affinity, and Yellow fever Carries away its thousands —

The Specific Contagion of Variola, coming in contact with a cell of Gray Matter, the impression is carried to the Epithelium, where the disease Expends its force, with such violence, as to destroy the Electric affinity, of the tissue for long periods, thereby giving immunity, from a recurrence of the attack.

But as the Cells of Gray Matter, only receive impressions from ultimate causes, They have the function, of automatically controlling the elective affinity of Red Tissues.

This is proven by the fact, that no ab-normal activity exists, without first a slight, or severe **Shock**, to the Nervous System;- This may be so violent as to produce death, or it may be barely perceptable to the patient.-

Hence the period of incubation, and irritation,

may pass unnoticed, but the chill, and nervous shock, usually summons the Practitioner, who is always able to recollect that he may see:

1st Irritation.
2. Congestion followed
by 3. Inflamation or
4. Suppuration or
5. Gangrene followed
by 6. Resolution or
Death.—

Again he may be called on to treat the Nervous—
Octopus — one arm Excessive Cerebration, one arm Chorea,

one arm Hysteria, one arm Epilepsy, one arm Delirium Tremens, one arm Convulsions, one arm Paralysis, and one one arm insanity, with innumerable accompaniments, — He may feel unable to control the terrible Malady —

But with one hand, he grasps the fundamental principles of —

Nervous Irritation
" Congestion or
" Inflamation

While with the other he ad-

-ministers his therapeu-
-tical agents, based ~~on~~ ~~op~~-
-on the great fact, of the
Electric affinity, of Cells,
and cell tissue and
the monster is controlled
by scientific measures.-

Again a sweeping Epi-
-demic of Cholera, or
Yellow Fever, may cause
the discouragement of a
fearful Mortality.

Yet if the fundamental
principles, so hon named
be met as they occur,- the
faithful Practitioner, may
be the means of the re-

-moral of the ultimate
cause, to which it
owes its origin, - and
also attain pre-eminence
in the discovery of proxi-
-mate cause, and in the
control of disease when
fully established; and
thereby receive the approb-
-ation of the Profession
and the Extern of Mankind.
Keeping within the limi-
-ts, of positive pathological
knowledge, he will pursue
his scientific investigations,
untill Empiricism is ban-
-ished from the Earth, by

a
Hippocrates Dogmatism,
and a
Baconian Logic, that
acknowledges no fallacy.

Byron Clark
Pennsylvania

1881

Thesis
on
Scarlet Fever
by
C. W. Bowman
of Pa
Jan. 11th 1881

Scarlet Fever. A contagious malady characterized mainly by a punctiform scarlet eruption appearing usually on the second day, and by inflamamation of the fauces and tonsils. It may occur at any age but is most common in children. Louis Smith of {N.Y.} says that. On account of its frequency and fatalety it causes more deaths than any other contagious malady. It presents great difference in character and severity. One familey may have it so mild that it will be hardley observed whils an other may have it so maligant that it will be fatal. Symptoms begin abruptly. The latent period is

Short between six and eight days often less. Sometimes it does not exceed twenty four hours. Generally ushered in with a chill. fever intense. pulse rises to 110 or 120 or more. temperature 102° to 104° or more. Skin hot face flushed. eyes bright. In some starting or twitching with stupor. showing that the brain is affected. With most children, vomiting occurs within twenty four hours. it generally occurs before the rash. If it occurs after the rash it is in most cases due to the effect of the virus on the brain. Great irritability of stomach indicates a serious form. When but nausea. mild form. The bowels

are regular or slight diarrhoea or constipation. On second day the rash makes its appearance, first on neck & chest then arms abdomen and legs. The rash resembles that produced by epternal heat or a sinapism. The rash disappears on pressure, but in favorable cases it immediately returns when the pressure is removed. Slow return of the rash is a sign of sluggish circulation and when marked it indicates a malignant form. The rash gives rise to a burning itching sensation which adds much to the discomfort of the patient. The redness

is not uniform. and in mild cases it is absent in places. Pharyngitis appears early sometimes before the rash appears. the throat has a general red afperance with more or less tonsillitis. The inflamation may render deglution so painful that there is trouble in giving necessary drinks The temperature ordinarily is from 102° to 105° in grave cases higher secretion by the skin is checked and the skin is hot and dry. The respiration not much increased unless there is a complication. there is often a slight cough. The lips are dry and often cracked.

The urine is high colored, and during the first days of the fever it frequently deposits urates. The symptoms continue from four to six days, when the fever begins to abate, and the rash becomes fainter. There is a gradual decline of the disease which in its onset was so abrupt. In favorable cases convalescence commences in six or eight days, the rash fades and the swelling and redness of the throat disappears, the appetite returns, and the child becomes bright and natural. With the disappearance of the rash,

desquamation commences. It commences usually on the neck and chest then spreads over the rest of the trunk and then to the limbs, occurring last in the palms of the hands and soles of the feet. Desquamation takes place in flakes according to the thickness of the epidermis. From the hands and feet sometimes separates in the form of a glove. The period of desquamation is of various duration sometimes is completed in one or two days, then again it may extend over a week or two

It is a period of some danger. for it is chiefly then when we have albuminuria, dropsy and rheumatism. It is thought that desquamated particles retain the contagium and are highly infectious. The intensity of the fever varyes very much in a different persons. It is sometimes so mild that diagnosis is uncertain. There is all grades from the mild to the most malignant. Sometimes takes on a typhoid form There may be ulceration or sloughing of the tonsils it generally occurs in second or third weeks.

A fals membrane may appear upon the tonsils and extend to other parts. There is great difference in epidemics one may be mild without hardley a fatal case while an other will be very malignant with a terrible mortality. The malignant form of scarlet fever is that in which the symptoms are severe and death tends to come on rapidly. The patient seems to be struck down by the severity of his attacks sometimes before the rash has made its appearence. Symptoms are well marked. the temperature very high. the pulse very rapid and weak. the respirations quick and shallow

prostration and muscular debility are extreme. the face is dusky and the expression anxious. sometimes there is delirium from the beginning which lapses into coma, preceded by convulsions. thought to be caused by the affect of the virons on the brain. Scarlet fever occuring at or just after parturition is excessively fatal. and constitutes one of the gravest formes of puerperal fever. It does not appear to be dangerous during pregnancy or lead to abortion. Sequelae the principle one is Nephritis with albuminuria with anasarca. Inflamation may extend from the throat

to the tympanic cavety and cans necroses of the temporal bone and abcess to the brain, membrain of nose and conjunctivae may be inflamed. In the decline of the fever rhumatism is quit aft to occur. serous inflamation of peritoneum, pleura and pericardium. In severe inflamation of throat sluffing and gangren may occur. Diphtheria is a quit common complication. Post mortem examination throwes very little light on the subject. the changes found are caused by the sequelaes and complications. cases that have died during the eruption blood clots

has been found in the heart and death during convulsions congestion of the lungs. Diagnosis in most cases is easy. Prognosis is very uncertain, statistics show a great mortality. and sequelaes of a dangerous kind are so apt to occur even when the patient is thought to be nearley well. Scarlet fever occurres most frecuently between the ages of three and ten years. It is not common under one year and infants under three month are considered safe from an attacks One attacks generaly shields from the disease but a second attacks

may occur in a number of years afterwards. Treatment. The fever cannot be shortened or aborted, the strength should be sustained, and excessive fever reduced and prevent complications. It is important that the sick be separated from the sound. A suitable room at the top of the house if possible and have the whole floor to himself. Good nursing, ventilation, disinfection cleanliness, and removal of surplus furniture and clothing. Patient should be kept in bed with only what covering is absolutely necessary. Diet should be nutricious and that which is easy digested

It is best that the patient should remain in the same room untill desquamation is over. He should stay in bed untill the eruption and fever have ceased. the room should be warm about 60° with good ventilation without exposure to drafts of air. Clothes should be changed every day or two. When temperature is high say 104° or 105° Sponging body with cold water a little alcohol, may be added ice to head, Injunctions gives relief and tends to lower the temperature hard with a few drops of Carbolic acid. When the fever is mild it requires very little treatment, but all cases however mild should be carfuly

nursed. If restlessness give bromid of potass. There is in most cases sore throat and is liable to be complicated with diphtheria when it is epidemic or endemic. The mild cases are just as liable to nephritis as the severe, so during the disease and in convalescence they require careful management in regard to exposure. In cases where temperature is 102 or 103 give the following

℞ Zinc. ferri chlorid ʒ ij
Potass. chlorat ʒ ij
Syp. simpl. ℥ iv M.

give teaspoonful every hour or two to child of four or five years. This is good to allay vomiting. To relieve

the soreness of the throat. inhalation of steam astringents or antiseptic gargles. If the bowels are constipated give a laxative. if diarrhoea restrain with Opium, A case should be treated on general principels. treat the symptoms as they arise. If there is nasal catarrh syringe nostrils with warm water containing some antiseptic, If throat be ulcerated or gangrenous use a solution of perchloride of iron or nitrate of silver. Warm fomentations or poultices should be applied externally. and if there be suppuration behind and below the jaw it should be punctured. The complications

and sequelae, must be treated as they are under other circumstances. Quinia should be used as a antifyretic gr-v may be given thri daly to one of five years. Aconit and Veratrum should never be used in fever cases. During the decline the following will be good ℞ Ammon carbonat. ʒ-ss Citrat. Ferri & ammon ʒ-ss Syr. simple ℥iv. M
Dose teaspoonfull every two hours
In all asthenic cases alcohol should be used in the form of wine whey or milk punch If great restlessness or symptoms of convulsions give bromid of Potasse. and

-ply cold to head with hot mustard foot bath If the heart is weak give digitalis. With great prostration give carbonat of ammonia. For the renal affection use diaphoretic and purgative remedies. Diaphoresis should be commenced by warm general or foot bath the patient then covered warm in bed. Hot airs or bottles of hot water wraped with wet cloth put around the patient in bed, Give acetate of ammonia and potassa, citrate of potassa and Spir. aether nitrous to be used in connection with the external measures. In robust children the pulvis jalap comp.

In asthenic cases Iron and digitalis
If there be earache a few drops of
laudanum and sweet oil in the
ear, with hot fomentation applied
to the ear will give release. If otitis
continues, the drum should be
inspected daily and if bulging
of the membrane be discovered
it should be punctured. One or
two leeches applied to the meatus
may check the inflamation
During convalescence the patient
should be careful not to take cold
oil silk worn over the underclot-
-hes for a month or two affords
considerable protection to the kid-
-neys. Prophylaxis. There is noth-

except isolation, and the proper employment of disinfection in the sick room and upon the patient. A convalescent child should not be allowed to mingle with other children for three or four weeks. All clothing and articles used about the patient should be disinfected before leaving the sick room. The following is a good solution. Sulphate of zinc ℥ viij. Carbolic acid ℥-j Water three gallons. A piece of muslin one foot sq. mus. should be dipped in the solution and suspended in the sick room and the same in the hallway.

adjoining the sick room. It would be best to use soft rags for cleansing the nostrils and mouth and be immediately burned. By such measures of prevention there can be no doubt that the number of cases of scarlet fever would be greatly reduced

Remarks:

Prof Chew. thinks that Belladonna is a prophylactic to some extent. It would be well to use it in connection with seclusion. It should be given untill the throat is dry and the effect kept up

An
Inaugural Dissertation
on
Remittent Fever

Submitted to the Faculty
of
the University Medical College

for the degree of
Doctor of Medicine

by J. M. Kotin.

Philadelphia
Pennsylvania

Remittent Fever.

Of all the diseases which are to claim our attention, I am disposed to consider this the most important from its annual presence in so extensive a section of our southern country; from its numerous attack or epidemic prevalence in so many localities; from its frequent violence, rapidity and proportional mortality, and on account of its being with the exception of the, Intermittent. the most common form

of fever prevalent in the Middle and Southern Section of the U. S. It is the summer and autumnal endemic of many of our States, and even in those which are exempted from its annual occurrence, it occasionally prevails during season of unusual heat and dryness sporadically, or as a severe and widely spread epidemic, It belongs almost exclusively to the warm months of hot climates but I will not deny the possibility of the occurrence of sporadic cases

even in the winter season of southern latitude but in the U S, they are very rare and most dependent upon a peculiar predisposition and others unaccustomed contingencies. & it not this form of disease to the attack of which individuals from the Cold and temperate section of our union, are so peculiarly liable on removing to those localities where it is endemic, or on visiting them during the summer and autumns in the more sickly season,

Remittents will be the prevailing form among both classes of person, but strangers are more violently affected, and the mortality among them is greater. It is not a disease peculiar to the U.S. It prevails extensively in the southern portion of France, and Italy, and other parts of the south of Europe, in Africa and in the East and West Indies, and is in fact the endemic of paludal district of all hot climate, in some Neighborhoods

attacks are not with us early as May, but in our own immediate neighborhood, "Yorkville S.C." we rarely meet with attacks so early, the middle of June, the first appearance, and the number increasing with the advance of the season until the cooler temperature of October, checks its progress, and finally disappears when frost sets in. Types of Bilious Fever approaches so closely in form, and has such a strong affinity to intermittent, which is shown by the tendency

which it has to pass into that form, and inversely by the proclivity of ague to assume the Remittent that it may be impossible in relation to a particular case, to decide to which of them it belongs, but if it be pronounced not to be fever, the disease must be considered Intermittent; if fever Remittent, In many cases the paroxysms of remittent occur at regular stated intervals, like those of intermittents and like them consist of the Cold hot, and sweating

stages, though in general less distinct and decided, In other cases there is no cold stage after that of the accession of the disease, and the sweating stage is slight. In others again, the fever nearly fluctuated in its course, at one time rising into a moderate exacerbation at another falling into a moderate remission, without forming well defined paroxysms.

At the commencement there may be two or more regular paroxysms as in intermittent; afterwards the paroxysms may

recur regularly without the Chill or the perspiration and at length the fever may assume the continued form and thus run on to its termination or it may commence as continued fever and after a time become paroxysmal or remittent, and may finally end in intermittent. Remittent fever has the same types as the intermittent, the quotidian being the most frequent, but the tertian is not uncommon, in this form in Yorkville, S.C. Remittents generally assume the

double tertian or quotidian, type; but the former is by far the most common, for although the exacerbations occur once every day, yet we almost always find a very manifest aggravation of all the symptoms on the odd or alternate days, sometimes we see two exacerbation occur in day, and only one in the night; and occasionally we meet with cases in which the principle of association between the exacerbations cannot be traced; as they every now and then make their appearance irregularly,

and which least expected, The first onset of the disease appears to take place indifferently at any hour of the day; sometimes in the forenoon, sometimes in the afternoon, and occasionally even in the night; and the paroxysm will have a tendency to return afterwards about the same hour.

Symptom For one or two days or more before the commencement of the fever the patient is very often affected more or less with feelings of discomfort; listlessness

langour & bitter taste in the mouth, nausea aversion from food, an indescribable uneasiness and sense of fulness about the epigastrium sometimes costiveness, and very generally more or less pain and heaviness over the eyes. The attack is usually ushered in with sensations of chilliness which may, perhaps increase into rigor or shivering, but is never or rarely so marked or violent as the ague of and intermittent, and a slight coolness of the

extremities is generally sensible to the observer the skin soon becomes hot and dry and constricted head-ache is complained of early, with a sense of fulness, heat throbbing, vertigo and occasionally confusion of idias, the face is flushed and turgid, the eyes red and suffused; the expression of countenance anxious and impatient; the respiration hurried and uneven, there is pain in the back an extremities, particularly of the colors of the lips with muscular debility and

prostration, there is much thirst; the sufferer is restless and tossing heavily from side to side the circulation is increased in rapidity and face with irregular determinations to different organs, the pulse in ordinary cases is not very frequent beating sometimes as low as ninety in the minute and not often exceeding one hundred and sixteen or one hundred and twenty the stomach is more or less irritable some cases being attended with distressing nausea, while

in others every thing swal-
lowed is instantly rejected.
Spontaneous vomiting is
not an unfrequent symp-
tom, it is often present
from the commencement
of the attack, but more
generally it does not com-
mence untill the second
or third day, or even later,
and the Matter vomited
being of a bitter taste
and of a yellow greenish
or bright-green color, The
tongue in a few hours
becomes coated with a
whitish secretion progres-
sively thickening into
a dense crust on fine

tinged of a brownish or yellowish hue under which its sides and edges are seen of a preternatural fiery red; it is often swollen and of sodden look; the indentations of the lower teeth being distinctly impressed upon its margin and shown when protruded. There are usually considerable thirst, a costive state of the bowels, and a diminished amount and increased coloration of the urine; and after the disease has continued for some days the skin acquires a yellow tinge

which is sometimes very decided and extends even to the Conjunctiva of the eyes. These symptoms continue without abatement for a considerable time usually from six to eighteen hours. When a gradual abatement of all the prominent symptoms takes place, and after a slight moisture breaks out at first upon the neck and face and generally increases until the whole body is covered with a gentle perspiration, but more generally however the skin continues dry after the

heat declined, and the
patient during the remis-
sion continues restless,
uneasy, and disinclined
to sleep, The duration of the
remission is exceedingly
variable, in some cases
lasting not more than
two or three hours in others
a whole day; being shorter
or longer according as
the type of the fever.
May be quotidian or tertian
The duration of remittent
fever in all its forms may
be stated at about 14 or 15.
days, but it varies with its
degree of violence and its
simple or complicated

Character. may terminate in few days as early as the fifth or sixth or it may run on for several weeks but the usual duration is from nine to fifteen days, but it is not uncommon to see the disease somewhere from the ninth to the fifteenth day take on a new character resembling the less severe grades of Typhus, all regularity in the recurrence of the paroxysms generally cease, the pulse becomes very frequent, small and chorded rising to one hundred and twenty in the minute, and

sometimes exceeding one hundred and forty, the tongue is dry, red and smooth or like the teeth and lips smeared over with foul sordes, the sufferings from nausea, vomiting and headache diminish or cease the bowels though in some cases costive are in others loose, the stools are dark or even black; the urine is very scanty or altogether suppressed, producing sometime great distention of the bladder, there is stupor or low delirium with subsultus tendinum picking at the

bed clothes slipping down in the bed &c, we not unfrequently see cases of this kind protracted to thirty forty and even fifty days though the average would scarcely reach the fifteen or twenty days. Do we not often find from some inexplicable circumstance connected apparently with the peculiar concentration or character of the miasmatic, that in certain localities and seasons, the disease manifesting a peculiar tendency to fall with especial violence on some one organ

or stomachs, as the brain, the liver, the alimentary canal &c. and to assume in consequence, a peculiar character in relation to its general phenomena and degree of fatality; but in general the parts most apt to become prominently affected in fevers of this kind is the liver and alimentary canal, and is distinguish according as the phenomena of hepatic or gastroenteritis disorder predominates by the terms hepatic and gastric, the hepatic remittent being characc-

-tuized by intense febrile heat, violent pain in the head; fulness, and tension of the right hypochondrium, excessive irritability of the stomach, frequent and forcible vomiting, the ejection being without any trace of bile & decidedly yellow color of the skin and adnata of the eyes &c, and the gastric sensitiveness by a bitter taste in the mouth & thick yellowish layer of mucus on the tongue becoming dry cracked and of a dark brown or black color, great weight and anxiety of the

praecordia pain and tim-
-ddness Chiefly at the
epigastrium, pain in the
forehead and great Craving
for Cool and acidilated
drinks &c,

Cause - The
Cause of Remittent-Fever
is doubtless some emanation
of whose nature we know
nothing, which from fav-
-oring Circumstances, is
exhale from Certain
localities, and have been
Called Marsh Miasmatic
because they are notorious-
-ly common in Marshy
places, and are probably
gaseous or aeriform; al-

any rate they are involved in the atmosphere, and imperceptible by any of our senses, the principal source of this effluvia or Malaria, is believed by some to be the decomposition of vegetable, animal and animalcular matters, whilst others have ascribed it to animalculæ; but Professor McElhenny, "of the University of Maryland", is disposed to refer it to Cryptogamic productions, or to the presence of minute spores of certain fungi diffused in the

atmosphere; and supports this view by a large accumulation of facts and much ingenious reasoning. he also states, "if I mistake not," that wherever there is vegetable decomposition going on rapidly there fungi are in abundance and this production is favored by animal putrefaction, but do we not every now and then meet with cases which can by no possibility be traced to miasmata, indeed cases sometimes occur which proceed

obviously from some tem-
-porary irritation, such as
indigestible food in the
stomach, worms in the
bowels &c. though this
particular cause may
be essential, yet there
are others which very much
assist their action, the
poison seems to find
a more ready entrance
into the system when
exhausted by fatigue or
hunger, or debilitated
by previous disease or
mental depression, and
during sleep, it often
lurks into the system
without obvious effects,

for a longer or shorter period of time owing rather to a predisposition to the disease than the disease itself, and under these circumstances any exciting cause may call the fever into action; and sometimes an attack is produced which might otherwise have avoided, exposure to the heat of the sun excessive exercise mental excitement. The contrast between the cold of the mornings and evenings and the heat of the middle of the day.

favors the development of the disease in the latter part of the summer and the beginning of autumn, whether the disease can be produced by exposure alone to a high degree of atmospheric temperature is a question which has been frequently discussed and while many maintain the affirmative of others as positively assume the negative, but it is very certain that the long continued action of excessive heat upon the body, by predisposing it to the action

of other Morbific agents,
will in this Manner of-
ten bring on an attack
of bilious fever inde-
-pendently of Malarious
influences, for nothing
is more Common than
for the disease to im-
mediately occur in those
who, after exposure to
the Midday sun or
Many hours of severe
labors in intensely hot
weather, but - while Many
of the sporadic Cases are
produced in this Manner
a large number of incon-
-testable facts would seem
to prove that - its More

common cause is a poison produced by the action of high degrees of solar heat upon such portion of the earths surface as are ordinarily covered or soaked with water when these are rendered dry by long continued heat and drought.

Diagnosis The only disease with which Remittent Fever, is liable to be confounded, are Intermittent, and Typhoid, distinguished from the former only by the continuance of

fever during the whole interval; but sometime it is very difficult to decide whether the case belongs to the one or the other variety of disease, but as I said above if it be pronounced not to be fever, the disease must be considered, Intermittent; if fever Remittent it is distinguished from the latter by its more regular and decided remissions, by the bilious vomiting and yellowness of skin which frequently attends it, by its shorter duration and its tend-

-ency to end in intermittent,
and by the absence of
diarrhoea, epistaxis, dingy
complexion stupor, tym-
-panitis, and tachycardia,
which are the most Char-
-acteristic symptoms of
Typhoid,

Prognosis Fav-
-orable, when the remissi-
-ons are distinct and
prolonged, with tranquil
sleep and sweating, if
the bowels are easily moved
and the evacuations
assume faecal appearance
and quality; if the stomach
becomes quiet, and

the tongue clean and less red. Unfavorable, when the remission is short and imperfect; when the stomach is specially irritable, when there is much wandering of mind or delirium inordinate frequency of pulse recovers ran when it transcends 130 to 140, great tenderness of the epigastrium, or lymphanitic swelling, with or without vomiting, obstinacy of intestines permanent coldness of the surface hiccough with ejectations of black matter, hemorrhage from the

bowels involuntary evacuations, suppression of urine, coma subsultus &c.

Treatment:- It does not always happen that we see the patient in the cold stage; which is in general too short to require treatment; but sometimes it is unusually prolonged, and the system so depressed, that the intervention of remedies becomes desirable, and under these circumstances, the patient should lie in bed and be covered warmly, hot drinks

should be given such as lemonade toast-water or infusion of balm; and heat applied externally by means of hot pediluvia, or heated bricks, bottles of hot-water bags filled with hot sand salt or bran, &c. placed near the feet and along the body. if there is much pain, or nervous disorder. A grain of Opium, or an equivalent dose of one of its preparation, is an excellent remedy, often affords great relief to the patient; and sometimes shortens the Chill, and moderates the subsequent-

fever, if there is great prostration of strength, shown by faintness, and a very feeble or almost-absent-pulse, stimulants should be used. as Carbonate of ammonia and oil of turpentine internally, and active rubifacients externally, such as Cayenne pepper in hot brandy &c. applied by friction to the upper and lower extremities, warm sinapism applied to the insides of the ancles or thighs, and over the epigastrium is also of great value, often reaction has taken place

our attention should be directed to the alimentary canal, at one time it was strongly recommended to begin the treatment with an emetic, but as a general rule they are not often called for, unless it be in the early stage of the disease, and the attack has come on very shortly after the patient has taken a full meal, and there is epigastric oppression, severe nausea and frequent but ineffectual efforts to vomit; the patient now and then discharging a mouthful,

of very sour, colorless fluid or of bitter acid bile, in such cases a gentle emetic may be useful, both by cleansing the stomach, and determining to the skin and bowels, and for this purpose Ipecacuanha is generally preferable, as it is safer, and more manageable, it should be assisted by draughts of warm water or warm Chamomile tea, which serve more effectual to cleanse the stomach, but they should be abstained from if there is pain at the epigastrium, tenderness on pressure. H.

Cathartics are absolutely necessary and form an indispensable part of the treatment; and of them Calomel is beyond all comparison the best, it remains better than most others upon the stomach and has a special tendency to act upon the liver promoting its secretory function, and thereby unloads the portal circle, it also tends to free the blood from the biliary matter which may have become redundant in that fluid, ten or twenty grains may be given alone or it-

May be administered in combination with Rhubarb Jalap, and Aloes and followed in six or eight hours by a dose of sulphate of Magnesia, or oleum ricini and if the bowels should not yield in two or three hours the dose should be repeated until it does operate, sometimes the bowels are so obstinate or the stomach so irritable that it becomes necessary to have recourse to purgative enemata, after the bowels have been thoroughly evacuated it will be necessary to keep them open once or twice daily during

the remainder of the Complaint, by Sulphate of Magnesia vel nitri-ni, or Sidlitz powder,

Venesection is not a general remedy, if the patient is robust and plethoric, and the local determinations are specially violent and painful, and the pulse full, strong and tense the face flushed especially after operation of the purgative. local bloodletting by Cups and leeches will be found useful after Venesection and may be repeated pro re nata. —

Diaphoretics are always indicated in the hot-stage and may be administered in union or alternately with the Cathartics, the effervescing draught being best, especially, in an irritable condition of the stomach; it may be advantageously combined with Spiritus Nitri dulcis, Spiritus Mindererii or if the stomach is not in the least degree irritable with tartar emetic or the pulvis antimoniatis, or the antimonial may be used alone if the stomach will bear it.

and should be continued through the remission, and so timed as to produce this fullest effect just at the period of exacerbation, and as soon as there is a well marked remission Quinine should be administered is not always necessary to wait for the well marked remission, when a paroxysm of great violence has been subdued, and there is danger that the next may prove fatal, Quinine should be given no matter how short or imperfect the remission may be, and given in

doses sufficient to bring the system under its influence before the next paroxysm, the warm bath is sometimes serviceable, in conjunction with diaphoretics, in inducing relaxation of the surface, and is especially adapted to the cases of children. If the surface is universally hot and dry without any sense of chilliness on the part of the patient; there is nothing so effectual as the application of cold water externally it may be poured over the patient: or he

May be measured, he is to be dried and replaced in bed and be covered warmly. the surface is then completely relaxed, and a copious perspiration often follows. if the patient is very feeble, much advanced in age, or much exhausted or infeebled at the time, it should not be used. forbidden also by determination to the lungs, and by the presence of diarrhoea, and should it occasion protracted chilliness and rigors, with continued discomfort to the patient, it should not

be repeated, The irritability of the stomach is one of the most embarrassing symptoms in remittent fever and the remedies most in use for the relief of this gastric irritation, are soda water the effervescing draught; lime water with or without milk, the Compound Cathartic Pills, and small doses of anodynes both by the mouth and rectum, but if in connection with this irritable stomach there should be an inflammatory affection of the stomach, as shown by heat there,

and pain increased on pressure and motion, the Mercurial treatment must be resorted to at once as being our best hopes of relief in the meantime applying leeches or cups, fomentation and sinapism, and Dover Powder at night if necessary @ large blister over the epigastrium without delay, laxative enemata may be administered at the same time to determine to the bowels, Quinine may be given by the rectum or hypodermical injection of Quinine

H. C.

A Thesis

To the Faculty of the
University of Maryland,

By

C. Finley Carter

Scarlatina

Scarlatina is a contagious disease, characterized most commonly by sore throat, accompanied by a bright-scarlet rash, appearing over the whole surface on the second or third day & subsiding in desquamination on the 5th or 7th. Scarlet fever was long confounded with measles & even when distinctly described it appears to have been considered a variety of that disease but is more fatal.

There are three varieties of Scarlet fever, namely, Scarlatina simplex, Anginose & Malignant. The disease is essentially the same in all of its varieties, & produced by the same cause. The fever sets in with a frequent pulse, hot dry skin, furred tongue, flushed face, anorexia, thirst & great muscular weakness. Sometimes there are nausea & vomiting & symptoms of nervous disorder, such as restlessness, vigilance, stupor,

delirium, coma, or
convulsions, either with
or without languor, rigors
& pain in back & limbs
often headache, the fever
is of every form & gra-
ade, from a mildness scar-
cely appreciable to disease
up to the highest point
of violence & danger.
Generally with the fever
there is almost always
more or less inflam-
mation or irritation of
the fauces, but it some-
times occurs after or
before. The fever which
on being examined appears

red & sore yet painful

ness. The main color
is diffused over the
interior of the mouth
& the tongue coated with
a white or yellowish fur
upon its surface & is red
at the tip & edges. The
rash usually appears
first on the face, neck
& breast, from thence to
the trunk & extremities,
occupying about twenty-
four hours in its diffu
sion, sometimes its course
is the reverse of that
stated. In the beginning
it is in minute red points,

which rapidly coalesce in
broad patches & in the
course of a few hours
gradually forms a con-
tinuous scarlet blush
over larger part of
body. Great diversity ex-
ists in different cases,
both in the amount &
the arrangement of erup-
tion, sometimes it is very
scanty, presenting only
a few scattered in different
parts of body, but it
more frequently covers
the entire surface, it
sometimes appears with
great intensity in the

flexure of joints, as in the groins, arm pits & bend of the knees or rather popliteal spaces, etc. In some cases in the midst of the general black points of a deeper redness are observed, the color has been compared to that of a boiled lobster, the color usually disappears on pressure, What ever increases the general excitement has a tendency to deepen it. The color increases if the patient is agitated, the reddened surface is found smooth to

the fingers & the rest are in no degree perceptibly elevated, sometimes the papillæ being inverted, it has a rough fur like that of goose flesh. The face, hands, & feet are often swollen, & the hands are sometimes rendered stiff somewhat. A crop of small milky vesicles which shoot thereafter at different stages of the eruption, with the characteristic rash may frequently be observed in the axillary spaces and flexures of the arms.

Papules & pustules sometimes accompany it during its decline. The cutaneous affection is attended with a sense of itching & burning, or other irritation which is very annoying & interferes somewhat with the patient's rest. The fever does not abate upon the appearance of the spots, but continues with great violence throughout its whole progress. The pulse is generally more frequent than in other forms

disease of the same
degree of intensity.
It is often observed to
be a hundred & twenty or
thirty per minute & even
more frequent. Occasion-
ally it has more force,
but this is predominant
character. The skin is
dry & very hot & tem-
perature often one
hundred & 5 or 6 degrees
Fht. The fever towards dea-
mise is occasionally atten-
ded by restlessness and
delirium & comatose symp-
toms. Diarrhoea sometimes occurs in the adva.

ceed stage - but the tonsils are generally constipated. The throat is often affected before the appearance of the eruption, & presents distressing symptoms by swelling inside & out. Usually the disease attains its height from the 5th to the 9th day, & if is favorable all of the symptoms begin to decline. The rash fades, the miliary vesicle if present dry up, the of the skin diminishes, the pulse becomes slower & fuller, the affection

of the throat covered the
tongue throws off its fur
if it has not previous-
ly done so, after remain-
ing redish & glossy &
with prominent papillae.
The amendment is often ac-
compained by profuse per-
spiration & diarrhoea.
When the eruption declines
desquamation usually seques,
& is often attended by itching
& much tenderness of the skin
it usually ends by the sec-
ond week, but may last longer
A few days after the com-
mencement of desquamation
albumen may be found in

the urine, & if examined in
the microscope, is found to
contain a considerable amou-
nt of epithelium of the
uriniferous tubules or other
portions of the urinary
passages. This disease is
never free from danger,
from the over powering
of the nervous system,
may take place even be-
fore reaction. Diseases of
the bowels often cause dea-
th, & affections of the lan-
gns have seen to carry the
patient off, though may
also die from the conseq-
uence of gangrene of the

throat from the exanthe-
ing pustules discharges in-
cident to local affections
which sometimes remain af-
ter the proper disease has
disappeared.
Scarlatina Simplex. This
variety is distinguished by
having only the fever &
rash with the absence of
the throat affection.
Scarlatina Anginosa. The
fever is more violent than
in the simple variety,
& in mild cases the rash
makes its appearance usual-
ly twenty four hours sooner
than severe cases. The

extension of the glands is
prominent. At the commence-
ment of the attack, pain
on deglutition, stiffness of
the jaws with sore throat
are often experienced. The
eruption makes its appearance
usually on the second or third
day, & is often confined to
a particular part, sometimes
patches with intermission
portions of the skin of the
natural color, & when there
has been much swelling about
the neck, recovery is
often very slow & secondary
affections are apt to occur
which protract the disease

and add much to its danger.
The symptoms typical of its class
sometimes assume a typhoid
character, this variety is
more dangerous than the
simple. Scarlatina Maligna.
This term is applied to cases
of extreme violence in which
the system is overpowered
by the force of the disease.
The is sometimes attacked
suddenly either with common
symptoms or with
great depression and
anxiety, the pulse being
feeble, frequent & irregular,
the surface may be cool
in one part & hot in an

stupor. From a few days
of the symptoms mentioned,
reaction may come on &
a low fever with stupor,
delirium or mental im-
pairment, a feeble circula-
tion, a livid dark red purpl-
ish eruption, involuntary
alvine discharges, renewed stupor
& unless a favorable change
takes place, death is result
in two or three days. In
cases where there is great
energy of system, the early
symptoms are those of
acute vertigo, the signs
of which analogously may
be suspected in such.

cases, are, violent pains
in the loins & extremities
with a disposition to delir-
ium or stupor, the pulse
is sometimes weaker, though
not less frequent, the red-
ness of the fauces is more
of a purplish hue than
in other anginose cases
The symptoms occasionally
assume a malignant character.
As the disease advan-
ces the eruption disappear-
ars, the pulse becomes fee-
ble, the skin cooler, & the
eruption assumes a livid
color. The membranous exu-
dation in the fauces is

often of a dark color.

Bed's ulceration sometimes appears. With considerable destruction to the soft parts, the tongue becomes brown, breath fetid, & lips incrusted with a dark sordes. The urine is sometimes bloody. & hemorrhage from mucous surfaces is often common. Blood oozes from the lips & tongue. Collapse takes place, sunken features, fluttering pulse, & involuntary stools ending in death within one or two weeks. There are certain cases with sore throat

during the prevalence of scarlet fever, without the eruption, showing all the symptoms, such cases are capable of imparting the disease. There are very few diseases which leave such a train of evils as scarlet fever. Abscesses are often formed about the submaxillary & parotid glands, which are often large & exhausting. In some cases the eustachian tube is closed either ulceration, or by its walls being inflamed and thickened which causes

destroy. Bronchial affections
occasionally follow this dis-
ease, but it is more com-
mon after measles. Pain
in the joints, & swelling
resembling Rheumatism
is common, still rarer.
In females, inflammation
of the vagina with mucu-
lent discharges, is an oc-
casional trouble. The most
serious of them all is the
kidneys being involved, ren-
ting in dropsy, but it
generally yields to treatment
though dangerous. When the
brain or heart are involved,
ominous. Before the erup-

tion has appeared it is diffi-
cult to distinguish Scarlet
fever from many other
febrile diseases. The most
characteristic symptoms are
redness of the fauces and
frequency of the pulse.
It is not apt to be con-
founded with measles, but
may be distinguished from
this by absence of the ca-
tarrhal symptoms & by
the eruption appearing
on the second day instead
of the fourth.
Prognosis. The result
is very uncertain. The milder
cases sometimes assu-

are the most malignant
character, & the patient
often supposed to be quite
free from danger, & then
dies with secondary derange-
ment. Some times the most
desperate cases recover, &
others under favorable cir-
cumstances, after convales-
cence there is liability of
serious secondary affections
Whole families have died
with this disease, & there
may be no particular malig-
nancy. Women seem to
bear this disease better than
men, but is very dangerous
during pregnancy. Women

it is often best, about one
half recover. Treatment—
When the symptoms are
mild, it is advisable to keep
the bowels open, & to regu-
late the diet, & give cooling
drinks, & see that the room
is well ventilated & of
comfortable temperature.
A mild emetic at first
may be given, followed
a small dose of calomel.
In diarrhoea, good results
may be obtained by the
combination of Costoria
& Laudanum. Great care
should be taken not to purge
to exhaustion. Blood letting

may be resorted to in some
cases & in other dangerous-
ly should be employed with
great caution & only when
there is an obvious indi-
cation, as symptoms of
inflammation of one of the
vital organs. When the
deficiency in amount
& a tendency to delirium or
coma, well directed should
be resorted to, such as neat
spirits of wine, nitrate
of potash, ect. For throat
affections, demulcent drinks
or gargles should be resort-
ed to; the throat may be
sprayed, or be treated by

cases of congestion of blood
and the pulse of patient
is strong enough leeches
may be applied but if
weak & delicate blood letting
is contraindicated & spec-
ial attention should be paid
to the best hygienical meas-
ures, & give tonics and
nutritious diet. Belladonna
has been highly recommen-
ded by some, as 1-5 of a
grain to 1/2 of the Ext.
according to symptoms
Belladonna has been supp-
osed by some authors to
be prophylactic against
this malady

A Treatise

on

Restratives.

[illegible]

[illegible]

[illegible]

A.D. 1881.

[illegible]

[illegible] is [illegible]
[illegible] that of approach this
[illegible]
[illegible] the clemency of any kind instructions
[illegible] make an attempt.

By restoratives we mean medicines
agencies by which the lost func=
tion of an organ or part, is restored
to normal standard, for instance in
a case of Spanaemia where there is a
diminution of the fibrine & red corpuscles
the blood, thereby impairing the function
of the blood and giving the tissues
red corpuscles [illegible] nutrition
[illegible] the blood
distribute the proper amount of nutrition
to the [illegible]

Cinnabar is notable as the
Cinnamon of Pharmacy and
[illegible]
called Tonics.
First we have the simple tonics
or [illegible] which are used
for all grade come under the head
of restoratives, because grade of
tonics nourish the vital forces and
by [illegible] [illegible]
Macropsine, and Oleaginous, not only
[illegible]
[illegible]
simple tonics, these are

[illegible]
[illegible]
[illegible]
strength to a failing organ and
I presume we have the best example
[illegible]
[illegible]
of the [illegible] nervous system
[illegible]
[illegible]
Digestive, 1st Among the Nervine
[illegible]
on the Brain [illegible]
[illegible]
[illegible]
may act in three different ways
[illegible]

the condition of the circulation
- and 2nd On the walls of the vessels
and 3rd probably on the vasomotor sys-
tem. Digitalis stands at the head
of remedies used both as mentioned
in the first two divisions.

3rd The Digestive tonics, these can
take be certain extent use the most
important when we consider that
life depends upon the consumption
and assimilation of nutritive matter.

Bitter tonics are generally considered
to type of tonics as they increase
the feeling of appetite probably from some
unexplained action upon the nerves
augmenting the salivary secretion and
possibly the gastric juice.

[illegible] each one of the classes separately and in detail will only treat some of the principle ones, and in so doing will be compelled to choose from among a great many typical ones.

[illegible] in a more [illegible] in many instances, [illegible] the [illegible] [illegible] technically as the Cyanthina [illegible] [illegible] cavity [illegible] by [illegible] [illegible]

known as the Gentian Catesbaei or Blue Gentian is sometimes used but is not as good as the former.

The Yellow Gentian is remarkable for its beauty & great comparative size sometimes rising to the height of 4 or 5 feet the root being the only part used Medicinally, dried as found in the shops it is cut in pieces of various dimensions & shapes generally of a [illegible] [illegible] the [illegible] [illegible] [illegible] a soft & spongy texture. The Pharmacopoeia contains several good preparations of this drug viz Extract Infusion & Tinct. Co. which [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] have every reason to believe it to be the best preparation.

As the pills for the purpose of increasing the mucous secretions they also increase the flow of saliva, & increase the production of the digestive juices. The increase of appetite is supposed to be due to several factors.

A sense of lightness, creating a craving for food and improvement in the digestive power, induced perhaps by some action on the nervous system, enabling more food to be tolerated of thus assisting the cause of activity. They may also favor assimilation by producing a normal state of the intestinal mucous membrane which secretes the mucous coating of the stomach. The nutrition of the tissues is undoubtedly improved, the blood being infinitely enriched by them. But if used to excess like

every other food & drink which have been placed here to use, & chiefly will produce bad effects, and the results will be gastric Catarrh, decrease in the flow of gastric juice and impaired digestion

Of all the diseases ~~that~~ to which the bitter tonics are applicable, perhaps we derive more benefit from them in dyspepsia than any other complaint, in this trouble they afford decided relief & comfort, and they are particularly useful in that form of the complaint, where there is loss of appetite, there is a distaste for certain articles of food, which may amount to absolute repugnance, and then in those cases where there is a feeling of fullness as if were emptiness & a constant craving

per food, in these conditions, gentian calumb or quassia produce most salutary effects, On these atonic conditions it strengthens the stomach giving it tone, and increases the secretion of gastric juice. Very often when there is gastric uneasiness & pain the mineral acids have a very beneficial influence, & among other diseases to which the bitter tonics are applicable I might mention, the vomiting of pregnancy (calumb) Diarrhoea, Malarial fevers &c.,

In that form of diarrhoea which is due to the relaxation of the mucous membrane and not inflammation, Dr. Columbo may be found useful. They have little influence on the course of malarial fevers alone, but are useful as adjuvants to other drugs, more active, by being synergistic.

I will now hasten on to the consideration of another class, known as the Bitters with peculiar principles, and this peculiar principle contained in them, gives them a position far above any other class of medicines treated under the head of restoratives, and as it seems right & proper to consider the best in each class first I naturally turn to the study of the Cinchona Barks, and think I can safely say, they have no equal in point of excellence & universal use, unless it be opium. And before considering the materia & uses of this valuable class think it will be necessary to give a synopsis of their history, from the time they were first introduced into practice. Cinchona was introduced into Europe as early as 1640

and was not known to naturalists until about 1737. La Condamine is said to have been the first to give any description of it having examined it in his way to Lima outliving his notice in the Lima Gazette, Linnaeus afterwards named it Cinchona officinalis in honor of the countess Cinchon, who, it is stated was the first to take it to Europe. And thus at once the tree gained a great thought and legend to become one of the best gifts of God to man, and since that time it has ministered to the pains & aches of the many millions, and like an angel of peace its quiet assistance has soothed the anguish of pain and during the hot & raging fever I seem to say "peace be still" and all is quiet.

For a long time, it was not known that more than one species existed of Cinchona bark, the one but known being considered as the number of plants belonging to the genus Cinchona, but his classification being rather unwieldy. Botanists now established distributed the into groups which may rather be called family, Cinchonaceae and the genus Cinchona, embraces the proper Cinchona bark, characterized by the presence of alkaloids quinia, quinidia, cinchonia & cinchonidia and lies in the genus which will be treated in this thesis. The genuine Cinchonaceae are natives of South America, and historical studies from the 17th to present of Spanish, the natives of South America, or the vicinity of Cinchonaceae on the western coast

at 10 degree of N. latitude. They follow the course of the mountain ranges, mostly occupying the eastern slope of the second range of the Cordilleras seldom growing less than 4000 ft above the sea level, and the bark is gathered from the slopes to 11 inches. Only 3 varieties are now found in commerce the Pale, Red, & yellow barks, the value of these barks is determined by the percentage of alkaloids they contain. The alkaloid contents are cinchonia than quinine & yellow quinia than cinchonia, and the red has about equal quantities of both.

The sulphate of quinia stands at the head of all cinchona preparations, and is a stimulant & tonic

properties of cinchona, this salt will be mostly referred to. I think it will be in order to consider the physiological properties first & therefore will proceed to do so. First with regard to its action in the different systems of the animal mechanism. On the Nervous system in large doses it causes marked brain symptoms, for instance there is partial blindness, ringing in the ears, deafness, giddiness & sometimes mental headache, with a dull heavy or missing sensation. Some say these symptoms are caused by anaemia of the brain this in turn being caused by a little heart action, while on the other hand equally high authority asserts that it causes congestion of

the brain. It is said you a student to decide which is correct, but I am inclined to the belief that it stimulates the sympathetic & the inhibitory nerves which pass into the alimentary system.

It acts on the spinal cord by lessening the reflex irritability, but upon this is learned by experiment unfavorable evidence to say that if given to an animal in large doses, it will be intolerable, thus it may be taken especially by those in pain. In small doses it acts on the vascular system by increasing the pulse but in larger quantities it lowers arterial pressure. It has a direct action upon the unstriped elements of the blood vessels, stopping their movements, and may pos=

cent the absorption of oxygen by the red corpuscles. It seems to have no effect upon the Respiration, and produces but little lowering of the temperature in a healthy person but when given in great excess the temperature is considerably reduced by it. The cause of this action has never been satisfactorily explained so far, judging from the difference of opinion on this point. We think there is a Nerve centre upon which it acts directly but it cannot be seen why it does not act in exactly the same way on this centre in health as in disease.

In moderate doses, it increases the flow of saliva, & gastric juice, in large quantities an exactly opposite effect is produced, but is an excellent antiseptic

supposed to be due to its poisonous influence over minute organisms. And to this property is ascribed by some, its wonderful influence over Malaria, supposing it to be caused by a vegetable germ or cell derived from marshy lands.

Therapeutical properties. It may be proper to state that there is a faint prejudice in nearly all the diseases natural to this country according to the best authorities. And as quinine is the great specific in Malaria it has been found useful in nearly all the diseases we have to treat. This seems strange but is based upon facts. As mentioned above Quinine is looked upon as a specific in Typhoid or Malarial diseases, and its name has

become as thoroughly associated with this class of diseases as Mercury is with Syphilis. Its action in these diseases is not very well understood and for this reason, has given rise to much discussion & the advancement of many theories, both absurd & sensible. Some say it has no specific effect, but acts by giving tone to the sympathetic system enabling it to resist the Malarial poison, & again others say that it has a paralyzing effect upon a septic influence, caused by a ferment from decaying vegetation. As in either of the above very plausible theories have been given I cannot say which is, or whether either is correct.

It acts as a prophylactic if taken in large dose. ——.

Quinine can be given during or after a paroxysm in ague, but perhaps is better just before the expected onset of the following paroxysm. ——

[illegible]

[illegible] the urine [illegible] the urine. If this organ has forced upon it, as a vicarious [illegible] the excretion of its [illegible] and the [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] while [illegible] will [illegible] [illegible] and rise of temperature it has not been [illegible] [illegible] [illegible] and urea.

The efficacy in typhoid fever has been disputed by many high authorities in

[illegible] [illegible], [illegible] [illegible] [illegible] [illegible] in this disease with good effects. Under the authority of our Professor of Materia Medica whose [illegible] of observation & judgment must be doubted, I would simply state that [illegible] a [illegible] of [illegible] [illegible] [illegible] conclude that it does accomplish [illegible] [illegible] the [illegible] [illegible] [illegible] -er does. The high authority [illegible] of [illegible] necessarily [illegible] [illegible] [illegible] [illegible] [illegible] effect control [illegible] the danger [illegible] from the temperature [illegible] certainly [illegible] [illegible] [illegible] [illegible].

[illegible] in very [illegible] doses it has a paralyzing effect upon the heart, may [illegible] [illegible] [illegible].

Climate has a marked controlling power over [illegible] diseases [illegible] [illegible] will be good.

Having mentioned the most prominent in the physiological and [illegible] pathological [illegible], I shall, to the extent of my limited information, [illegible] another class of [illegible] under the general [illegible].

Gen. [illegible] the [illegible] in so [illegible] personally [illegible] in the [illegible] that it [illegible] the result of [illegible] to [illegible] of a [illegible] these [illegible] [illegible] be taken as an index of that [illegible] [illegible] in civilization. It is [illegible] by [illegible] a [illegible] of the [illegible] in which [illegible] [illegible] the [illegible] [illegible] [illegible]

that a ferro-cyanide is formed and decomposed by heating in a crucibleing furnace. But as it is my purpose to return [illegible] to explain the method more especially in the consideration of Iron & Steel.

The preparations are many, & will only mention a few of the most important.

Iron Reduction. One of oxygen [illegible] of reducing the iron of oxygen which forms in a fine metallic powder or else, [illegible] the metallic iron [illegible] of the action of both Nitric and a hydrochloric acid.

Iron Sulphuret. Consists of heating iron sulphate with Sodic Carb.

Iron Sulphate. Iron sulphate is made by [illegible] dilute sulphuric acid [illegible] of heating or boiling.

[illegible] is the most [illegible] used preperation, It is made by the action of [illegible] acid on [illegible] and afterwards adding diluted Alcohol.

I have [illegible] only a few of the preparations I have endeavored to choose the best in my [illegible].

Iron has a [illegible] influence over the nervous system, but occasionally in plethoric persons it causes an un=comfortable sensation of fulness [illegible] in the head, when this occurs it should not be used in the treatment of this class of patients.

[illegible] used with benefit in the treatment of [illegible].

It acts as a tonic to the muscular structure of the heart, augments the quantity of red corpuscles [illegible] the red blood corpuscles [illegible] number rapidly, increasing them in anæmia, rather [illegible], [illegible] merely speaking.

It increases the [illegible] of the [illegible] secretion of [illegible] [illegible] increase [illegible] secretion [illegible] resisting digestion.

It increases the amount of urea excreted [illegible] pushed, may irritate the bladder, causing frequent micturition, and partly it increases the temperature partly by augmenting waste of tissue, & partly by the oxidizing properties.

Therapeutically [illegible]

Tonic in all kinds of Nervous exhaustion

in Neuralgias especially when the patient

is anæmic. As before stated it is given

with excellent effect in Chorea, in the

form of Bromide.

Iron is found normally in the epithelial

[illegible] It is [illegible] by supplying

a valuable constituent

As already stated it increases the

[illegible] of the blood [illegible] [illegible]

medicine in flat cases of drops, that

[illegible] [illegible]

and as the blood is important to

tissues, we have the explanation of its

[illegible] [illegible]

It acts in Albuminuria by giving time to

[illegible]

[illegible] long Syphilis &c

It [illegible] the [illegible]

alterative; when given internally [illegible]

are colored but if it is given by hypo=

dermic injection they are also colored,

and the [illegible] principally

[illegible]

The astringency [illegible]

this property is [illegible] the treat

ment of diarrhoea.

It is used with good effect in gleet

and [illegible] the tissue and has

an [illegible] effect in the treatment of

[illegible]

It [illegible]

[illegible] in doses of ℥ss to ℥ss every 3 or 4 hours. And has been used with advantage in acute Rheumatism.

I make mention of its use in Rheumatism because my father [illegible] this [illegible] of the Materia Medica.

I have omitted the consideration of one of the divisions of Restoratives, viz the aromatic Bitters. But as these are [illegible] for homœopathy as [illegible] for the administration of other more potent medicines and as my time is very limited I shall [illegible] the consideration of this class or [illegible].

Finis, and.

The Inaugural Dissertation

on

"Cholera Infantum."

Submitted to the Examination

of the

Provost, Regents and Faculty of

Physic,

of the

University of Maryland,

for the degree of

Doctor of Medicine,

By

Hector Humphreys Goodman

of

Annapolis, Maryland.

Sessions of 1880 & 81

Cholera Infantum.

There is no disease in infancy which, considered in relation to its prevalence or mortality, claims the attention of the Physician more strongly than "Cholera Infantum." Taken in connection with "Enterolitis" it causes more deaths in large cities than any other disease. For a long time it was considered to be peculiarly endemic to America, but that is not the case, it is only more fatal here and is described by foreign writers under different names.

Causation.

The most potent predisposing cause is the heat of summer and hence it is during the summer alone and principally during the months of July and August that it prevails, (scarcely ever existing when the temperature is below 60°). But more dependant upon heat alone, combined with impure, confined air of cities. It is attributed to dentition, but at this period there is great functional activity and

rapid development of the mucous follicles and the peculiar liability to Cholera Infantum at this age should be attributed to this cause rather than to dentition. Artificial diet is another great predisposing cause especially farinaceous or starchy food. It is also attributed to hereditary causes. It occurs more frequently in the male infant, than in the female.

Pathological Characters.

The most common lesions are: Development and ulceration of the follicular apparatus of the stomach and intestines.

This is most common in the large intestines, next in the small and last in the stomach. The lungs have been found in many cases congested and also Atelac=tasis Pulmonum due to mere Adynamia. The veins of the Pia Mater are generally

injected and the sub=
stance of the brain is
filled with numerous
red spots — suffused blood.
In some cases there
is effused fluid in
the Subarachnoid
space and lateral
ventricle. Softening
generally partial,
has been observed in
some cases, that died
of stupor, convulsions
and paralysis.

Symptoms.

The most prominent symptoms are vomiting and purging. Fever often of the remit=
=tent type and often varying with Collapsis rapid emaciation, and towards the close violent cerebral symp=
=toms. In the majority of cases, Diarrhœa followed by vomiting is the first departure from health, while in others the onset is abrupt. Vomiting usually occurs for the

2nd day, but it may
come on at any time
during the first week.
The substance vomited
consists of the contents
of the stomach, mixed
with mucus and bile.
Sometimes there is no
vomiting, but a small
frequent pulse, cool skin,
paleness and exhaustion.
Diarrhoea is the most
important symptom.
At first the dejections
are frequent in the
beginning with copious,
almost colorless fluid
stools, being watery

yellowish or yellowish and very fetid. The number of stools is very irregular, it may amount to twenty five or thirty in twenty four hours, but in most cases, it is not more than six or eight a day, after the first few days. The fever depends upon the nature of the attack, in violent cases, it is very high from the beginning and is often of a remitting type, being worse in the evening than in the

morning. In particularly fatal cases, the pulse becomes very rapid, often reaching 150.

The respiration unless there is some pulmonary complication is regular, but during the height of fever, it may reach 50 or 60.

The temperature after 2nd or 3rd day often reaches 105° to 107°

Nervous System.

At first there is irritability and fretfulness, then

the child becomes stupid with eyes half closed later in fatal cases, it rests its little head upon the pillow and a clinching motion of the lower jaw is observed. In the most severe cases emaciation occurs very rapidly, a dark areola appears around the eyes. Aphthae appear in the mouth and the anus becomes red and excoriated.

Duration

The duration is very

uncertain, it may be arrested in two or three days, or it may continue until cold weather, or until the child is removed to a more salubrious climate. Prof. Wm. C. Howard tells of a case that died in twelve hours from the beginning of the attack.

Diagnosis.

The diagnosis is very easy. In the majority of cases the coexistance

of vomiting and purging and the character of the stools remove all difficulties. In the latter stages when stupor comes, it may be confounded with "Tuberculous Meningitis", but the stools are more frequent in the former, while in the latter, the cerebral symptoms are more prominent from the beginning of the disease. The symptoms are usually connected with softening of the brain, but it is impor-

tant to distinguish be=
=tween cerebral symptoms
betokening exhaustion
and those signifying
true cerebral disease.

Therapeutics.

At first the vomiting
and stools are more
frequent but they fail
to remove the more
solid constituents of
the food, when this is
the case, give Syr. Rhei
Arom. cum Hydrg. Magnesia and Tinct. Opii
Deod., and afterwards

give an astringent. The child should take a tepid bath twice a day and if it is very feeble add some stimulant to it. In mild cases this is generally sufficient. If the stomach is burdened by an improper meal give an emetic with some mild laxatives. Calomel is by far the best in doses of 1/2 to 1/4 of a gr. every 2 hours until the stools show signs of mercury, but always stop under 3 grs. When the stomach is irritable, it is best to withdraw every thing but milk and lime water

to which may be added
Creasote.

℞ Liq. Calcis ℥ iii
Creasote gtt ij

Mist sig ℥ j in milk or lemonade
Sugar of Lead is the best
when there are serous dis-
=charges from the bowels

℞ Plumbi Acet grv
Acet Acid Dilut gtt v
Sacch Alb ℥ j
Aqua Dest ℥ iii

Mist sig ℥ j every 2 hours until
the vomiting ceases. As there
is generally acidity of the
stomach and intestinal
canal give Chalk, Crabs
Eyes, Prepared Oyster Shells

adding a few drops of some astringent.

As soon as the stom=
=ach will retain food, give light nourishing diet and Sub Nit: Bismuth. In advanced cases, diet, tonics, change of air, are beneficial. In these cases where there is rapid exhaustion with slight looseness of the bowels give

℞ Cretae Prep. ℥j
Tr. Opii Deod. gtts xvj
Tr. Krameriae ℥ij
Syr. Zingiberis ℥iij
Creasote gtt iij
Aqua Calcis ℥ℭ
Aqua Destil ℥viij

Mist sig ℥j every 2 hours.

To those Nervous Symptoms not due to cerebral trouble the name of Spurious Hydrocephalus has been given them. Of these, there are two stages, which frequently herald approaching exhaustion, when they do the anterior fontanelle is always sunken below the level of the cranial bones. In the first stages there is well marked irritability, the child starts at the slightest touch or worse, with disorder of the bowels. In the second stage, there is stupor with cold legs and hot turnid tympanitic abdomen and diarrhoea. The skin is cool and the pulse frequent and feeble,

under such circumstances, it is proper to rally the child's strength with Stimulants and nourishment. Cholera Infantum may be confounded with Typhoid Fever, there is however in the latter, gurgling in the illiac fossae, rose colored lenticular spots, agitation at night, more continuous fever and about the 8th day, some evidence of bronchitis, all of which is wanting in the former.

Prognosis.

Under good hygienic influence it is favorable, but where it occurs only in dentition and

the child is delicate, it is not so much so, the prognosis is favorable when the pulse becomes slower, vomiting ceases, stools become less frequent and the surface assumes an equal temperature. But when convulsions come on there is scarcely any hope.

Treatment.

In cities all those who are able should remove their children to the most healthy country localities, give it as much fresh air as possible. This plan is usually adopted and there has been a marked decrease in the disease. Dress it lightly and if under 2 years dont wean it.

Diet.

The child should be kept at the breast until the 2nd summer has passed, as that is the season of the greatest danger and it should never be weaned until after September if it can be prevented give it crushed ice, light soups and raw meats if old enough to digest it. If diseases occur from improper food, give the child aperients followed by astringents, or if powders be preferred give

℞ Creta prep ℥ij
Pulv Kino grij
Gum Acacia
Sacch Alb āā ℥j
Opii P. gr j
Myristicae P. gr ij

Mist ft ch xij div. S. One at a dose.

[illegible]

[illegible]

[illegible]

torque used and the chronic case

the dejections often become of a dark

brown color, or present a light yea

[illegible] appearance and of a [illegible]

[illegible]

[illegible]

must be used and [illegible]

The [illegible] B

is a [illegible]

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graduated [illegible]

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glass of water [illegible]

[illegible] is so impaired that the [illegible]

Ut liceat, et ante oculos vestros, Professores doctissimi, hunc libellum prohonore, et eundem medico illi perfecto, **Gulielmo T. Howard**, dedicare.

Venerabundus petit,

H. H. Goodman.

Thesis
on
Digestion.

Sheldon Lindall.
February 11, 1881.

Define Digestion? Digestion is a function, by means of which alimentary substances when introduced into the digestive canal, undergo different alterations. The object is to convert them into two parts; the one, a reparatory juice destined to remove the perpetual waste occurring in the economy, the other, deprived of its nutritious properties, to be rejected from the body as faeces.

This function is composed of a series of organic actions, diffe-

ing according to the particular organization of the animal.

In man they are eight in number viz; Prehension, Mastication, Insalivation, Deglutition; Action of the stomach, small and large intestine, and Defecation of the fæces.

Digestion is a process by which the food is reduced to a form in which it can be absorbed from the intestinal canal and taken up by the bloodvessels.

This process does not occur in vegetables which are dependent for their nutrition upon materials which are supplied to them in a form already fitted for absorption.

carbonic acid ammonium carbonate and ammonium nitrate exists in a gaseous form in the atmosphere or are brought down in solution by the rain and distribute the soil to the roots of the growing plants; while many of the mineral salts as sulphate, nitrate, and carbonate, are also present in the soil in a soluble condition.

Thus, they require no alteration before being taken up by the tissues of the plant.

The only known exception to this is in the case of material composed of the earthy carbonate and phosphate, which are insoluble or

nearly so in H_2O but when are known to be corroded and rendered soluble by the acid juices of the tissue roots in contact with them.
As a general rule the substances requisite for vegetation are dissolved by absorbed from the atmosphere of their original condition.
With animals and man the case is much different.
They cannot subsist on inorganic substances only but require for their support materials which have already been organized and which have previously constituted a part of animal or vegetable bodies.
Their food is almost invariably

solid or semi solid when taken, and insoluble in H_2O.
Meat, bread, fruits, vegetables, and the like, are all taken into the stomach in a solid and insoluble condition, and even substances naturally fluid, such as milk, albumen, white of egg are nearly always in the human stomach, more or less solidified by the process of cooking, before being taken into the stomach.
An animal's accordingly, the food requires to undergo a process of digestion or liquefaction, ere it can be absorbed.
It consists essentially in the food being reduced into a canal running

through the body from one to two called the alimentary canal in which it comes in contact with certain digestive fluids, which act upon it in such a way as to liquefy and dissolve it.

These fluids are secreted by the mucous membrane of the alimentary canal, and by certain glandular organs situated in its neighborhood.

The food consists, as we have seen, of a mixture of various substances, having different physical and chemical properties; and the several digestive fluids are also different from one other, each exerting a peculiar action, which

is more or less confined to particular species of food.
As the food passes through the alimentary canal from above downward, those parts which become dissolved are successively removed by absorption, and taken up by the vessels; while the remaining portion consisting of the undigestible matter, together with the refuse of the intestinal secretions, gradually acquire a firmer consistency owing to the absorption of the fluids, and are finally discharged from the intestines under the name of fæces.
The anatomy of the digestive apparatus and the character of the secretions

fluids vary as to the species of animal and their habits.

The digestive apparatus of the herbivorous animals is more complex than that of the carnivora.

In the common fowl, the food consists mostly of grain or insects with hard, corneous integument first passes down the oesophagus into a diverticulum, termed the crop; here it remains for a time mixed with a watery secretion in which the grains are macerated and softened.

The food is then carried farther down until it reaches a second dilatation, the proventriculus.

The mucous membrane here is thick and glandular, and is provided with numerous secreting follicles.
From them an acid fluid is poured out, by which the food is subject to further change.
It next passes into the intermediate stomach, commonly called gizzard, a cavity inclosed by thick muscular walls, lined with a rough and horny epithelium.
Here it is subject to the crushing and grinding action of the muscular parietes, assisted by grains of sand and gravel which the fowl instinctively swallows with the food, by which it is so triturated and disintegrated

that it is reduced to uniform bulk upon which the digestive fluids can effectually operate.
The mass then passes into the intestines where it comes in contact with the intestinal juices which complete the process of digestion and from the intestinal cavity it is finally absorbed in a liquified form by the vessels of the mucous membrane.
In the ox shee[illegible] camel and all ruminating animals there are four distinct stomachs, each lined with mucous membrane of a different structure and adapted to perform a different part in the digestive process

In the carnivora the alimentary tract is shorter and narrower than in the herbivora and presents less complexities. In the human species, the ingesta is naturally of a mixed character, containing both animal and vegetable substances.
But, notwithstanding this difference in the kind of nourishment, the digestive apparatus in man resembles closely that of the carnivora.
For the vegetable matters which we take as food are, in the first place artificially separated to a great extent from indigestible substances; secondly, they are so prepared by the process of cooking as to become

nearly, or quite as digestible as animal substance.
Tho' the process of digestion in the human species is simpler than the herbivora, yet is somewhat complex.
The alimentary canal is divided off into different compartments or cavities, which communicate with each other by narrow orifices.
At its commencement we find the cavity of the mouth, which is guarded at its posterior extremity by the muscular valve of the isthmus of the fauces.
Through the pharynx and oesophagus, it communicates with the

second compartment or stomach, a flasked shaped dilatation, guarded at its cardiac, and pyloric orifices by circular bands of muscular fibres; then follows the intestines, different parts of which, owing to the varying structure of their mucous membrane, have received the names of duodenum, jejunum, and ileum. In the duodenum are situated the orifices of the biliary and pancreatic ducts.

Finally comes the large intestine, separated from the smaller by the ileo-caecal valve, and terminating at its lower extremity by the anus, at which is situated a double sphinc-

ter, for the purpose of guarding its orifice.

Every where the alimentary canal is composed of a mucous membrane and muscular coat, with a layer of submucous tissue between the two. The muscular coat is composed of a double layer of longitudinal and transverse fibres, by the alternate contraction and relaxation of which the food is carried through the canal from above downward, and the arrangement of which varies in different portions of the canal. The mucous membrane also presents a different structure and has different properties in different parts.

That of the mouth and oesophagus is smooth, with a hard, white, tessellated epithelium, which however terminates abruptly at the cardiac orifice of the stomach.

The mucous membrane of the gastric cavity is soft and glandular, covered with a transparent columnar epithelium, and thrown into minute folds or projections on its free surface, which are sometimes reticulate with each other.

In the small intestines it presents larger transverse folds, known as the "valvulae conniventes," is covered upon its free surface with thickly set villosities of various forms, and con-

tains throughout an abundance of tubular follicles.

In the large intestine the mucous membrane is smooth and shining, free from villosities, and the glandular apparatus is different in structure, and function from that of the preceding parts.

In the passage of the ingesta from above downward it comes in contact with at least five fluids, viz:- the saliva in the cavity of the mouth; the gastric juice in the stomach; and the intestinal juice, with the pancreatic juice and the bile, discharged into the cavity of the small intestine.

These fluids themselves are, in some instance of complex nature, resulting from the mingled secretions of several associate glands, or of various parts of a single mucous membrane. The action of each digestive fluid upon the food, to a certain extent has been investigated; and it is found that certain of the secretions have a peculiar and distinct influence upon special ingredients of the food.

Dr. Jno. C. Dalton, of New York, says:-
"As the result of the successive action of the digestive fluids, modified, perhaps, by the effect of their combined operation, the substances composing

the alimentary mass are gradually reduced to a fluid condition, in which they are fit for absorption by the vessels of the intestinal mucous membrane. The action which is exerted by the digestive fluids, is not that of simple chemical solution, but is a transformation, by which the ingredients of the food are altered in character at the same time that they undergo the process of liquefaction.

An albuminoid, or nitrogenous matter being the agent in producing this change; in every instance, which forms the most important ingredient in the digestive fluid; and which by coming in contact with the food, exerts

upon it a peculiar action, transforming its ingredients into new substances; it is these newly formed materials which are fully absorbed by the vessels, and mingled with the general current of circulation."

Dr Thos. H. Huxley, of London, says:—

"When the stomach is empty its mucous membrane is pale, and hardly more than moist.

Its small arteries are then in a state of contraction, and comparatively little blood is sent through it. On the entrance of food, a nervous action is set up, which causes these small arteries to dilate; the mucous membrane consequently receives

a much larger amount of blood, it becomes very red, little drops of fluid gather at the mouth of the glands, and finally run down as gastric juice.

The process is similar to the combined blushing and sweating which takes place when the sympathetic of the neck is divided.

Pure gastric juice appears to consist of little more than water containing a few saline matters in solution, and its acidity is due to the presence of free hydrochloric acid, HCl; it possesses, however, in addition, a small quantity of a peculiar substance, called pepsin, which seems to be not

altogether dissimilar in chemical composition to, though very different from ptyalin, in its effects."

It is easy to ascertain the properties of the gastric juice experimentally by putting a small portion of that part of the mucous membrane which contains peptic glands into acidulated water containing small pieces of meat hard boiled egg, or other proteids, and keeping the mixture at a temperature of 100° F. After a few hours it will be observed that the white of the egg, if not in too great quantity, has become dissolved; while all that remains of the meat is a pulp,

consisting chiefly of the connective tissue and fatty matters which it contained. This is artificial digestion, but it has been proven by expert pathologists, by experiment that precisely the same operation takes place when food undergoes natural digestion within the stomach of a living animal.

The proteid solution thus effected is called peptone, and has the same character whatever the proteid nature which has been digested. Peptone differs from all other proteids for being so very soluble, and in the readiness with which it passes through animal membranes.

Many proteids, as fibrin, are naturally insoluble in H_2O, and others, such as the white of an egg, though apparently soluble, are not completely so, and can be rendered quite solid or coagulated by being simply heated, as when an egg is boiled.

All the substances which are used as food come under one of these four heads, proteids, fats, amyloids, or minerals.

The earliest decisive investigations in regard to the existence and properties of the gastric juice were those made by Dr Beaumont, of the United States Army, in the case of a canadian boatman, who was effected

with a permanent gastric fistula, the result of an accidental gunshot wound.

The musket, which was loaded with buckshot at the time of the accident, was discharged, at a distance of a few feet from the canadian's body, in such a manner as to tear away the integument, at the lower part of the left chest, open the pleural cavity, and penetrate, through the lateral portion of the diaphragm, into the great pouch of the stomach.

After the integument, the pleural, and peritoneal surfaces had united and cicatrized, there remained a permanent opening, about one inch in

diameter leading into the left extremity of the stomach, which was usually closed by a circular valve of pro=truded mucous membrane—
This valve could be readily depressed at any time, so as to open the fistula, and allow the contents of the stomach to be extracted for examination.
Dr. Beaumont experimented upon this person at various intervals from 1825 to 1832.
During this course of examination, he established the following facts; 1st That the active agent in digestion is an acid fluid, secreted by the walls of the stomach; 2nd that this

fluid is poured by the glandular walls of this organ only during digestion, and under the stimulus of the food; and finally it will exert its solvent action upon the food outside the body as well as in the stomach, if kept in glass vials upon a sand bath at a temperature of 100° F. He also made a variety of other interesting investigations, as to effect of various kinds of stimulus on the secretion of the stomach, the rapidity with which the process of digestion takes place, and the comparative digestibility of various kinds of food. The same person with his gastric fistula unchanged, after an interval

of 24 years, came under the observation of Professor Francis G. Smith, of the University of Pa., who also made a series of important experiments, of a similar nature, confirming and extending those of Beaumont.

Another case, in a young woman, otherwise healthy, the result of a local inflammation and abscess, happened in Germany, in 1854, and was investigated by Professor E. Schmidt. Even after death the gastric mucous membrane remains nearly in fact, because, as a general rule digestion has been at least partially suspended for the last few hours of life, and the stomach, accordingly, con=

tains little or no gastric juice.
Still it is rare, in the human subject
to hold a post mortem, 24 or 36 hours
after death, without finding the
mucous membrane in the great pouch
more or less softened and altered in
its appearance from the cause.
Sometimes, when death takes place
suddenly by violence or accident, in
a healthy person soon after the
ingesta of food, and when the
body has been protected against
rapid cooling, the accumulated gas-
tric juice acts powerfully upon the
walls of the stomach as upon the
food which it contains.
A case which verifies the self digestion

of the stomach after death, was one which came under my observation in Baltimore Infirmary:- a British sailor, age 43, of thick build, medium height, entered June 21st '80 with this history:- some days previous to entrance caught cold while at sea, expectorated a good deal, soreness across thoracic region, no chills or fever; face very red, and somewhat oedematous about ciliary region.

Percussion normal, by auscultation, respiratory murmur of right lung little exaggerated, left lung normal, murmur at apex of heart of systolic character.

June 24th, 2.30 P.M. He became unconscious

stertorous respiration, pulse strong and normal.

8.30 Respiration ceased, but heart kept beating for three minutes, no radial pulse perceptible, by 15th sounds of the heart could be heard on auscultation, they sounded normal, but seemed a distant sound.

25th At post mortem held, showed dilatation of the aorta, both lungs congested, peri- and endo- carditis, pleuritic adhesions, adhesion of the pericardium, and the mucous membrane of the great pouch of the stomach appeared softened, tho' altered somewhat from its normal appearance.

A Thesis
on
Pneumonia

Written
by
H. R. Conning,
for the
Degree
of
Doctor of Medicine,
February 14th 1881

Pneumonia.

After casting about personal mind for a subject on which to base my Thesis, I have at last decided to write upon Pneumonia. My attention has been repeatedly, I may say, almost continually drawn towards disease affecting the respiratory organs, from the fact that physicians are very often called upon to examine this part of the human frame, and are required to treat diseases pertaining to it, probably more frequently than those of any other organs. These diseases, varying greatly in their nature & complication, open a vast field for study. At one extreme the slight forms of Bronchitis, that may be scarcely noticed & tend to spontaneous recovery. At the other, that,

dread & almost universally fatal malady Pulmonary Phthisis. Between these two extremes we find the middle class, composed of those which demand treatment & yet do not always tend to a certain result either with or without it. ~~treatment~~ Since these diseases are so numerous & so different it is necessary for me to limit what I have to say, to giving the distinctive characteristics of one & the treatment applicable to it. In choosing a subject a student should aim to select a type of a class. I am not more familiar with Pneumonia than with other diseases but I consider it as occupying a middle ground, sometimes leading to a favorable result & sometimes an unfavorable one. It seems so specially fitted to represent the best diseases since it well illustrates the effect of treatment,

whether good or bad, in addition to this it supposes a sufficiently peculiar subject to make it a suitable standard with which to contrast other diseases. The subject matter of a thesis written by a student, cannot be expected to compare favorably with a thesis on the same subject written by men of experience. My personal knowledge of Pneumonia is necessarily limited. With the exception of a few cases seen in the clinic & in the practice of my preceptors, I have had no experience. Hence it is not possible for this or that to be written with original thoughts. On the contrary, I will be obliged to follow the textbooks & our Lecturer, verbatim. We have three inflammatory diseases of the Respiratory Organs. Pneumonia, Pleurisy & Bronchitis. Their difference is explicit

in their definitions. Pneumonia "Inflammation of the lung substance", Pleurisy, "Inflammation of the Pleura", Bronchitis "Inflammation of mucous membrane lining the Bronchial tubes" these are different from Consumption in that, the last consists of tubercular deposit in the lung. (Definition)

The study of the minute anatomy of the lungs reveals to us their proper structure & enables us to distinguish between the accompanying parts & the real substance. This organ may be considered as a cluster of cylindrical membrane-cells which admit the air during respiration, these cells are covered by a complete network of capillaries, some bringing blood to be purified & some conveying it back to the general circulation. The definition of Inflammation (Anatomy)

as given by the authorities & accepted by the profession is, "A morbid increase of action in a part with perverted nutrition accompanied by heat, pain, redness & swelling." Assuming this to be the correct definition of the word inflammation & applied to parts most abundantly supplied with blood vessels & substituting it where the word occurs in the definition of pneumonia, we begin to realize the character & danger of the disease. The distinction between different cases & their division into classes is very different authors. It is my purpose to treat of simple uncomplicated pneumonia, bearing in mind that there are very many complications, some in any case may be liable.

The names croupous or fibrinous, catarrhal or tubular, fibroid, contracted lungs, chronic pleurisy that although different names are used to designate special modifications yet they mean about the same thing. I pass by Pneumonia caused from wounds in the chest other traumatic causes, since they are comparatively rare, & restrict myself to those arising from natural sources. In nearly all diseases we can not ascertain the cause but it is seldom that that probability amounts to a certainty. In reasoning upon the truth of any proposition, the greater the number of probable instances that can be cited, the less likelihood there is of being mistaken.

(Classification

(Causes.)

A consequence of this there is a point at which a statement becomes so probable that we are willing to concede its truth. Etiology is largely based upon the application of this principle, but it is also dependent upon reasoning directly back from ~~reas~~ effect to cause. The knowledge of the cause will sometimes enable us to prevent the natural result, or if the result have already supervened, that knowledge will assist in the treatment. When called upon to attend a patient with pneumonia the chilling of the few days before the attack, is asked for, the or his friends bring forth numerous causes some real & some imaginary, but they all may be summed up under the head of <u>Exposure</u> to changes of temperature

& weather. In the country, & think, many cases may be assigned to the fact that the kitchens are not attached to the house, & the women engaged there are obliged to go back & forth without regard to the state of the weather, & careless of the difference in temperature between the hot kitchen, & the cold winter air. Evidently, by proper care & management, many cases could be avoided, but there are others that give no warning & arise without warning & without perceptible cause. The mode & intensity of an attack of Acute Lobar Pneumonia will vary with the circumstances, which the patient is surrounded, his constitution & age, the immediate cause & the many little things, that occur

in the course of the disease & modify their nature. Premonitory symptoms may be absent & the disease develop at once into a well marked pneumonia, & then perhaps they vary in intensity, either pointing directly to the result or so hidden as to render it impossible to read their meaning. There are certain resemblances in symptoms & signs, that are present in all cases of pneumonia, but when we examine individual cases & compare them with each other we sometimes find marked differences. The disease is most frequently located in the lower lobe of the right lung. Writers generally have agreed that a case should be divided into three stages. But in

(Symptoms)

his work on practice recommends the following: 1st Active Congestion or Engorgement, 2nd Solidification or Hepatization, 3rd Resolution or Suppuration. Others style them as Engorgement, Red Hepatization & Gray Hepatization. That these stages really do exist has been proven by post mortem examination & the characteristic anatomical distinctions, with the symptoms accompanying them, have been very minutely described. The intensity of all these stages must of course vary with each case, but the most marked difference is in the 3rd stage. The final result of the attack generally depends upon it. It ends either in suppuration or resolution. If in the former the patient becomes weaker & finally succumbs. If the latter the inflammatory products are simply expectorated.

(Stages.)

or absorbed & the patient passes on to recovery. - Suppose that as regards treatment the 1st stage is most important since if taken in hand at that time it may be speedily controlled. Its symptoms are not uniform. No infrequently it begins with a chill, accompanied by pain & oppression in the chest, followed by fever, dyspnoea, cough & expectoration. These symptoms generally follow closely one upon the other & sometimes exist at once. The permanent ones are pain, fever, dyspnoea, cough & expectoration, the chill passing off in a comparatively short time. The pain is not characteristic; it cannot be distinguished from that of Pleurisy & is frequently caused by a combination of Pleurisy & Pneumonia. It ranges from the severe oppression in the chest,

to the most severe in character. Expectoration is one of the most constant symptoms & after a time becomes of diagnostic importance. It is at first scanty & then increases in quantity, becoming green-colored & then frank-colored & so viscid that it adheres to the bottom of an inverted vessel, conditions favorable to the expectoration of this disease. This cough is due to tissue shaded from the inflamed lung. The cough, like the expectoration, varies in the different stages. It may be described as a hard, troublesome or painful cough throughout the first & part of the second stage, becoming loose & less painful as the case nears the third stage. It is not characteristic since there are many diseases in which

cough appears, but when accompanied by the expectoration above described, it permits almost directly to certainly to Pneumonia. Fever occurs with the invasion, the pulse ranging 80–120. Surface temperature is raised 103°–104°. Frequently flushing of face especially on affected side, & other signs of quickened circulation appear, & throughout the disease there is an increase of pulse when another lobe is attacked, or when new complications occur. Just here I will note the fact that the intensity of the disease is not necessarily denoted by the intensity of the symptoms, e.g., "Flint expresses it in another part of his work." It may be laid down as a fact applicable to inflammatory disease in general, that the symptoms distinguished as constitu-

sutional, have no true relation to the extent or intensity of the local affection." The respirations are short, quick, number from 24 - 50 in minute generally. This change is due to pain in respiration & to obstruction in the lung. When solidification takes place the pain diminishes or ceases. The symptoms increase — intensified or lessened, according to the nature of the case. The fever will probably disappear by crisis. The expectoration loses its color & adhesiveness, becomes more like that of Bronchitis, & is now chiefly furnished by the Bronchial tubes in contiguous to the inflamed lung. This is given to fluidity & mucous cast of the tubes in the sputa. These are generally copious, but the respiration

is not perceptibly changed, since the solidified lung cannot yet resume its functions. The difference between a favorable & unfavorable condition in the third stage, is marked, especially, in the pulse, expectoration & respiration. If favorable these all proceed towards the normal standard, the cough disappears, the appetite returns, & convalescence is established. On the other hand, the pulse becomes more frequent & feeble, the expectoration purulent, the respirations increased, & the patient dies by Asthenia & obstruction in the lungs. Thus have collected & arranged to the best of my ability, the general symptoms of pneumonia. There are many others that might be cited, many complications that might be dwelt upon at length the

Sometimes there is the disappearance of chlorides from the Urine, but this is not characteristic. It is said however, to indicate that exudation is still going on, or that resolution has not begun, the assistance to show the stage of the disease. Delirium sometimes occurs, varying in its character. The disease is liable to many complications & these necessarily modify the symptoms, they must be watched for & treated accordingly. Pneumonia with Typhoid Fever occurs, but more frequently Pneumonia modified by typhoid symptoms & known as typhoid Pneumonia. The duration varies considerably, Flint gives an account of 30 cases the mean duration of which was 12 days. He also makes the length of the duration of the different stages,

(Duration)

sarcomatous tissue from a few hours to several days. The importance of a proper diagnosis (Diagnosis) cannot be overestimated. On it hangs everything; for a true diagnosis is the only rational guide for treatment. It is not difficult for a man to decide whether a disease is located in the respiratory organs, but when he is called upon to state his opinion as to the presence of Pneumonia, he must call up all his knowledge, exercise his reason in fact apply all his powers whether natural or acquired. When a case follows the course delineated by me as the description of the symptoms of Pneumonia, in general, it is not so hard to diagnose it satisfactorily. But there are often cases in which the symptoms are obscure. Then we must depend upon the rational & physical signs

in order to determine its nature. It may be well just here to distinguish between a sign & a symptom, "Symptoms imply a faculty, signs do not, one may be both a symptom & a sign." As I take it the feeling of the patient is a symptom of disease, while that which can be perceived by the Physician is a sign. It is, however, the duty of the Physician to attribute to both signs & symptoms their value & indications. The signs are important when the symptoms are well marked, but especially so when they are obscure. They appeal directly to the senses, percussion & auscultation to the hearing, pulse & irregular breathing to the sight, palpation to the general sense of touch, &c. At the beginning of an attack there is slight redness

(Signs & Symptoms)

on percussion. The auscultation crepitant rale is heard during the 1st stage, this rale is described as resembling a fine dry sound & being limited to inspiration. When it is well-marked & persistent it is considered as characteristic of Pneumonia. In the second stage there are bronchial respiration bronchophony & sometimes pectoriloquy with increased local fremitus, & dulness commencing almost to flatness. This dulness extends over a surface proportionate to the part affected, so that it is possible to say how much of the lung substance is implicated. As a result of this the attack of another lobe can be detected at once. Resolution is indicated by the modification of the signs, together with the symptoms & the

return to the normal condition. In suppuration the dulness continues, moist bronchial rales are present, dull pain in the tubes, the patient becomes weaker & everything indicates the failure of his system. Pneumonia is diagnosed directly from Pleurisy by the Crepitant Rale & coarse expectoration, the respiratory sign of pleurisy being the friction sound. Throughout the pain, expectoration & respiration. From Consumption principally by its sudden attack & the previous history of the patient during late years. The Medical Profession seem to have experienced a great aversion to the importance of these physical signs. Cases have been written solely on Typical diag-

nosis & give at a iters quite the subject as much attention as their importance will allow & advise the reader to refer to those special works. In spite of these advantages, I fear that many often are sadly unfit to distinguish the nature of a disease, by these means. The prognosis will vary with the intensity of the attack, its complication, the surroundings of the patient & his constitution. Life in case are so modified by these circumstances that the prognosis varies as much as if they were different diseases. The disease itself, alone considered is regarded as tending to recovery, the real danger depending upon coexisting affections & complications. When developed in the course of fever, to the relief it is almost an

(Prognosis)

Old & feeble people sometimes die of uncomplicated cases. The greater the extent of lung affected the less able is the patient to withstand the effect of inflammation. But numerous facts of the frequency of complications & their effect on the result, & especially mucous, intermittent fever, pericarditis & delirium tremens. In my account of the symptoms & course the unfavorable cases & the mode of death, it is unnecessary for me to repeat them here.

Different opinions are expressed as to the relation between Pneumonia & Phthisis, some saying that Pneumonia predisposes to consumption others that they are entirely independent of each other.

The treatment of a disease depends upon its nature. Hence there is reason in a physician's questioning a patient closely as to his condition & weighing carefully each sig. of disease. As a rule the expectant form is peculiarly applicable to pneumonia. It is true that writers lay down general rules of treatment, but these can all be proven to rest upon the principle of meeting the indications & treating the symptoms as they occur. The treatment of pneumonia has undergone a great change. Formerly in the 1st stage blood letting & cathartics were freely used, but these have been gradually set aside. It is true that under certain circumstances we are still advised to use the (Treatment)

lancet, but public opinion is so strongly against it, that we seldom benefit its application. The great difficulty in bleeding is, that while it seems to relieve the disease for a time, by diminishing the amount of blood passing through the lungs & thus lessening the labor of that organ, it weakens the patient, that it unfits him to bear the subsequent changes in the disease. As said above death occurs from asthenia; hence it is no, well except in strong, hearty, men with bounding full pulse, to do anything to favor the weakness that is afterwards sure to appear. In preference to bleeding, I think recommend Saline purgatives Tartar Emetic & Veratrum Viride in small doses cautiously given. The preference Aconite to Veratrum as

strengthening & depressing. For fever, tinct. in antipyretic doses, Nitrous powder &c. Opium is probably the most important factor of the treatment as regards the comfort of the patient. Usually given in the form of Dover's powder, in doses sufficient to control the pain, allay the cough & tranquillize the system. Continue with tonics when the general condition indicates the latter. While Flint lays special stress upon Opium in the Medical Bantlotor in speaking of it the uses of Opium does not mention Pneumonia except indirectly by referring to inflammatory dis. In another place he says it is of doubtful utility in general. There is a difference of opinion in regard to Blisters. Flint says "Blisters are not advisable, on account of the general disturbance they are apt to cause, & their interference with

physical examination of the chest." While Bartholow says, "During the inflammatory stage Blisters are harmful, because they stimulate the nervous & vascular system; & are useful, when the crisis occurs, to assist in the degeneration & absorption of inflammatory products." Then we have Mercurials in all forms, & we are left to draw our own inferences & exercise our own judgment. All seem to believe in counter-irritation of some kind, Ipecac, Iodine, Lycopus, Sinapism, Turpentine stupes, hot fomentations &c. Some prefer ice cold applications but this has not come into general use. Probably warmth & friction generally relieving. Hot mustard foot bath in first stage covering up warm & overheating or cooling too quickly. An ill-ill sick jacket is

useful for maintaining an even temperature, In the second stage the weakness begins to show itself. This phase of the disease must be met with supporting treatment; The amount of support necessary varies with each case & the physician must exercise his judgment in each particular instance. He should watch for indications of feebleness from the first, so as to be able to meet them when they occur, In order to do this, he must take into consideration the patient, his habits, age & constitution. Especially are supporting measures needed in diseases of a typhoid nature. The diet should be nutritious, milk, occasional broth, & farinaceous substances. Bartholow recommends, Qart. Ammoniac at the period of crisis

as being expectorant & counteracting depression. (In earlier stages a combination of Squill & Seneca, or Brown Mixture is used.) Alcoholic stimulants, Brandy, Wine, Milk Toddy, pure nate. The principle of the use of stimulants is the same, as in continued fevers & other low states of the system. Milk speaks of Seneca as a very important tonic. Dr Thorley recommends it combined with Morphia. Some cases need no treatment other than palliative. The liability to relapse is not so great as is generally thought, still it is well to be prudent & avoid exposure for some time. When there is facility convalescent the can return to solid diet & usually his progress to complete recovery is short.

Reasoningly analogy from the use of Ergot in pulmonary hemorrhage & irritation & inflammation of Spinal cord, a physician of my acquaintance in South-western Virginia decided to try it in a case of Pneumonia he was treating. This was an independent experiment by him, & although the child not suspend other treatment, its effect seemed marked. The amount of blood in the expectoration was conspicuously diminished. The case seemed one of especial severity & the expectoration was very high colored.

Perhaps, there was not time sufficient to see its effects — the use of Aconite & Veratrum

linen, since it is impossible to support septic treatment, either in the modified use of these agents, the latter is probably superior to both of it.

A
Treatise
Medical Chemistry
for the
Use of
Medical Students.

Presented by
Faculty of Maryland.

Med. Exams.

Articulations. Name & the joints of the Hip bone.

Anatomy.

The acetabulum of the hip joint, being composed of the os innominata and the head of the femur, which articulates in a cup like cavity, the acetabulum, in a recent state being covered with cartilage, and of a dark and deep pink. The bones are composed, mostly of canal ated structure, and are highly vascular, quite easy to inflammation.

Ligaments.

The capsular lig. is a broad,

and dense surrounding the
neck of femur, the latter being attached to the margin
of acetabulum, and below to the
lower portion of the neck of
femur; it covers the anterior
of the joint, and holds the head
in its place. Within Scarpa's
is a band of fibers, [illegible] Anterior Inferior Spine of the Ilium
to the anterior inter-trochanteric
line of femur, and protects the
joint from being thrown in
for. Backwards, Scarpa's
there is a small ligament attached
in the acetabulum, and head
of femur, and protects the joint

from pelvis downwards, Cotyloid ligament surrounds the cavity, and provides a smooth surface for the articulation, with the head of femur, Muscles Psoas and Iliacus tends to rotate the thigh inwards, also steady the head of femur in the cavity, arises from the dorsum; Spinous process of Ilium and is attached to the pectineal line of the pubis. Sartorius draws the thigh upon the pelvis, and at the same time rotates the leg inwards. Quadriceps Extensor is the great Extensor of the thigh.

Pectineus, and the three adductor muscles rotate the thigh inwards.

Pathology.

The disease may be caused by inflammation of synovial sac.
2nd, The rupture of a ligament.
3rd The rupture of a blood vessel. When caused by rupture inflammation of synovial sac, rupture and bursting into the cavity, the result of violent exercise, strong stretching or rupture of a ligament will cause the limb to shrink, and inflammation of most often to occur,

The rupture of a blood vessel will cause the blood to gravitate into the surrounding tissues; again inflammation will be the result.

Causes.

These are generally traumatic, and attack young children most frequently. Prof. Sayre says that children, who are most prone to this disease, are those, who are accustomed to much violent exercise, as for instance, jumping, running, rolling from a fall, especially those, who have not the tender care of an affectionate mother, to look after them.

to a fall upon ice, while skating, sustaining some injury thereby which proves fatal after week, and two months may pass on, without any external symptoms, but step by step, this much dreaded disease is advancing; when suddenly, he may suffer from the fruits, of a long passed fall, which are bad results from his or the parents ignorance, The disease most often attacks children, who leads a sedentary life.

Symptoms,

Dr Sayre, classes three stages

1st Stage

The patient, some months after his injury, may suddenly be stricken down with a severe pain in his limb. At first the pain is so severe as to prevent any attempt to walk, but as he continues to walk, gradually the pain clears and can walk with more little difficulty; but when he stops, and attempts to walk again, intense pain, resembling, caused by the contraction of the muscles, takes

gives away to his lameness.

which causes some degree of, and the limb appears to be longer,

[illegible] attempts to relate the limb, [illegible] considerable pain. In this stage of the disease, [illegible] inflammation with slight effusion, and atrophy occurs, without anchylosis.

Stage of second stage.

In this stage there will be "apparent lengthening" legs flexed upon thigh, thigh upon pelvis, caused by effusion of serum under neath the capsular ligament, which stretches the ligament, thus drawing up the limb; and are held in position until the ligaments and muscles, being put upon the stretch, in that position

To corroborate this, I will quote from Prof. Tyrrell,
"If you take a dead subject, bore a hole in the pelvis from within, to the head of the femur, through this inject some fluid stop it up, the limb at this time has assumed a flexed position, caused by the lightening of the capsular ligaments, and pressure exerted upon the limb can will either force out the fluid or rupture the ligament". Hence the flexion of the limb in this stage. The muscles during this period, have become accustomed to the position.

If in this position, the patient goes to sleep, with the muscles of the limb drawn, and no support to the limb, every one around will be awakened, by a sudden and loud scream from the patient, caused by the relaxation of muscles, the lowering of the limb, and tightening of the ligament, within which, is said, they attempt to reduce the limb would be fruitless.

Third Stage = In this stage the disease the pain which has given so much pain, was now burned into the surrounding parts, through the inflam

of the Calcular ligament.
The patient - a quality sense
of his intense suffering, which
he had borne with fortitude.
He can use his limb more, not
being flexed at the knee joint.
The change from the second to
third stage is very sudden.
Shortening exist, caused by the
slanting away left head
bone and enlarging of the
Ischiatic cavity, and also the
Ischiatic ligament and Gluteus
Maximus. The limb is flexed at
the pelvis, pelvis turned higher,
on diseased side, so an equilibri-
um may be restored.

generally the pus has escaped through some external opening, and sloughing portion of bone may appear. Anchylosis generally takes place at this period, This is the most dangerous portion of the disease, and great care should be taken to prevent blood poisoning.

Diagnosis.

When your patient comes to you with suspected disease, strip him and let him stand in front of you, with his back towards you. If any symptoms of the disease, you will first detect his well side

suspecting the lady, which has been one well known somewhat extensively. Having detected this you must place your patient upon his back, with his limbs flexed upon at the pelvis, so that his back may fall clearly upon the pressure table, (whichever you use,) then gradually draw down his legs into the bent position, with out disturbing the body out of position. If there is any curvature, you may be sure your patient is suffering with the disease

In the last stage can easily detected by the position of leg and pain in the parts, but in all the stages pain exist; muscles,

Prognosis.

This depends materially upon the constitution of the patient - at the time of disease or operation, If in the first stage of the disease, the patient is attended to in time, he will get well, with but little deformity and no Anchylosis, But in the 3rd stage where the bone is eaten by disease,

and section necessary to save life, then will the Prognosis be uncertain as Pyaemia or Septicaemia may occur. Should the patient get well his limb will always be considerably shortened by bone sloughing away the end of the bone and detached cartilage, the bone also being drawn upwards by the contraction of the muscles. But death is most likely to occur at the stage owing both to the condition he is in and the sloughing of the joint —

Treatment

This is both general and local. The general treatment is to give good, nourishing food, good times, good and hygienic treatment; locally, Blisters, cups, and etc should be used, but we must be at according to the stage

1st Stage

In this stage for treatment care on the principle of inflammation, by Counter Irritants. Keep the patient at rest, give good times. And use a splint to prevent the limb from drawing up. Sometime Tenotomy is required.

2nd Stage

In this we have seen, that considerable fluid exist in the cavity, beneath the capsular ligament; some steps must be taken to get rid of it. This can be done either with the Aspirator or Trocar and Canular; introduced into the joint just above the great trochanter a little behind the median line of the bone, that care must be taken in the operation, not to introduce the needle or pass, too far inwards.

After you draw the fluid out; you must place some

adhesion plate [illegible] to prevent the admission of air into the wound, there being a vacuum. Sometimes the [illegible] may again collect in the pleura, but this is very rare, and the operation can be repeated.

All treatment of the general health must be attended, Quinine if necessary should be used, but [illegible] at best with [illegible] care, for one very trivial defect in the state of the lungs has discovered [illegible] of [illegible] relate the [illegible]

Third Stage

As we have seen, the lungs is

[illegible] diseased [illegible]
[illegible] after the [illegible], if you [illegible]
the disease you desire to cure,
you are [illegible] to [illegible]
Anchylosis. Nature, means of cure in this
disease, is the [illegible] of the
bone, [illegible] in [illegible], the
is very [illegible] and [illegible]
[illegible] point [illegible], [illegible] the
[illegible] [illegible] to [illegible] you
[illegible] in her progress, by the
incision of the [illegible] [illegible]
[illegible] the [illegible] of the [illegible]
[illegible] operation. Make an incision,
to [illegible] the [illegible], through the
[illegible] part, down to the great
trochanter, the [illegible] [illegible]

to 3 or 4 inches in length. The through this incision divides the muscles, which are attached to the great trochanter, rotate the limb of the other one, and then the head of the femur will protrude, and the disease, now that [illegible] the persistence, I divide across, taking care of the trochanter, of the acetabulum cavity, or disease, scrape out the bone. After doing this [illegible] put-splints on and so that his limb is gradually [illegible] union of the bones. Anaesthetics should always be used. The after treatment, is like in all cases.

Typhoid Fever

A continued fever characterized by rosecoloured spots on the abdomen, tendency to diarrhea and with specific lesions of the mesenteric and peyerian glands.

It is a pathological condition of the system which like many others has received a variety of names by different authorities and up to the present no scientific or significant name has been arrived at and attributed to it.

Could we understand the real nature or isolate the supposed Materies Morbi its proper nomenclature would naturally follow, but so long as we are ignorant of that unknown essential and cause of the symptoms characterizing this morbid condition, necessarily must we be unable to give it a significant name

It has first been recognized and isolated as a distinct and separate disease from the ordinary typhus by M Louis through his valuable anatomical researches and given the name typhoid

The term however is open to objection for it is not significant of the disease, but merely expresses a pathological condition incidental to a variety of diseases. The term literally meaning only a low or prostrated condition. Bretonneau before the isolation of the disease by Louis advanced the name of dothienteritis from the anatomical characters exhibited on dissection This would be a somewhat better term but although these anatomical lesions of the intestines are constant concomitants, they are far from giving origin to it and are not the only lesions presented. The literally indicating only the presence of intestinal lesions

A variety of other names have been advanced and ascribed to it but nearly all equally insignificant as to its pathology. The Germans designating it under the name of abdominal typhus, which in our opinion is not only objectionable as to its literal etymology but on the grounds that it has a tendency to

confuse the disease in the minds of embryo physicians with the disease designated as typhus
Murchison as if apprehending the impropriety of the foregoing terms advanced the name of pythogenic fever which is perhaps more objectionable than any of the others. In the first place the term is to general, since we may with equal reason and propriety believe that the unknown something in a variety of other diseases is equally putrid. Again it is a term not sufficiently comprehensive, for we know that the fever may arise from others than putrid, cesspool, or sewer emanations. In adopting a term to distinguish a disease medical nomenclature always aims to select a name which marks it out from all others, and points to a constant feature, as this can not always be accomplished we must often contend ourselves with arbitrary names and this is somewhat true of this affection
M. Petit and Lerer however described a disease

as early as the year 1812, which was probably the same disease, to which they ascribed the name of Entero-Mesenteric fever. This appellation pointing out a constant and generally well marked lesion and is rather a brief definition of the disease but its inconvenient for its length, and knowing the direct sympathy of the mesenteric with the intestinal glands Prof George B. Wood of Philada suggested the name of enteric fever, which we believe has been generally accepted. A variety of other names have been forwarded, but not generally accepted they fell into disuse and now wholly belong to the past. The term fever is a rather general one. Its literal translation embracing all pathological conditions in which there is elevation of temprature and is best described in the language of Fordyce, which has been confirmed and sanctioned by the profession within the last half century, - This eminent author says -

Typhoid Fever

ame

"Fever is a disease which affects the whole system It affects the circulation, the absorption, and the nervous system. It affects the skin, muscular fibers and the membranes It affects the body and it affects likewise the brain. It is, therefore a disease of the whole system in every kind of sense"

The foregoing illustrating its general character and therefore its almost universal application in diseased conditions. It is literally derived probably from fervor = meaning heat.

Typical characters

Whatever the name we attribute or ascribe to it, may be, and wherever the source of this diseased condition may lie, it always manifests itself in certain specific lesions of the bowels and generally depends or directs its virulent effects on the Peyerian patches and Solitary glands. It does however not affect them all simultaneously, but attacks them successively from below up

Anatomical characters

At times the disease may run its whole course and affect a few only, while again in other cases it may not only affect the whole ileum but even produce corresponding lesions within the jejunum and duodenum, even the pyloric end of the stomach has given post mortem evidence of similar lesions. Occasionally the lesions may be confined to these unusual parts and not affect the ileum at all. As a rule however the lesions are confined to the ileum and generally those patches in the neighborhood of the ileocaecal valve are affected before those further off. The increased vascularity physiologically of those nearest the valve probably is one reason why they should become involved before those higher. Blood pressure is increased and the heart acts more violently causing a determination of blood to these parts, in consequence of which we have an active engorgement. The bile too has probably a word to give to these processes. In all fevers we have the secretions almost universally checked

atomical characters

in consequence of this, the ingesta suffer its absence and are not properly digested, becoming as they pass down the alimentary canal irritable and have effects similar to other rancid and decomposed matter. But probably more is due to the immediate absence of bile. The amt of bile secreted may be sufficient to allow digestion to go on but not enough to effect its antiseptic function on the canal in general. This function of bile which we believe has been sufficiently proven by physiologists, we can readily understand why in the absence of it these patches irritated by the fecal matter together with the exalted temperature of the intestines should the more readily take on degenerative changes. The number of patches affected are however not in relation to the severity and gravity of the disease. They seem to bear no direct relation to the disease. We may have but few of them implicated and these so deeply as to perforate the walls of the intestines and cause fatal peritonitis

Anatomical characters

on the other hand we may have a large number affected and have a very mild form of the disease. The implication of them is very early manifested. They have been observed according to Flint and others as early the second day after the establishment of the fever. They then enlarge to a considerable size, becoming elevated from two to four lines above the plane of the adjacent mucus surface. They assume a deeper color than normally. They become indurated, all this is probably a true hyperplasia of the cellular elements within the closed sacs containing these patches. The mucus coat then softens detaches itself from the parts underneath and sloughing ensues; this evidently due to a decomposition of the tissue from want of nourishment. In consequence of this abrasion or sloughing we now have an ulcer formed. All this as a rule takes place in the same progressing manner as the implication of the glands viz - from below upwards

atomical
racters

Ulceration then the result of sloughing of the mucus membrane and this the result of ischaemia. Soon after the formation of these ulcers, if they pursue a favorable course evince a disposition to cicatrize, a thin serous membrane is formed at the bottom which gradually becomes thicker and harder and finally fills up the excavation produced by the ulcer. The cicatrix is then formed, this usually takes place during convalescence. Occasionally however they take a more unfavorable aspect; the ulceration extending in width and depth, successively invades the submucous, muscular and serous coats, ending finally in perforation, but death most often occurs before this final change takes place. At times we may have all the evidence of this disease and no ulceration whatever. In such cases recovery probably takes place by resolution or absorption of the matter they contained. In cases of perforation which may be the result of sloughing of the tunics or of rupture

Anatomical characters

In the former case the opening is generally small, may not be larger than a pins point. If caused by rupture the opening may be large and generally giving rise to fatal peritonitis. In case of cicatrization the bowel is healed but the follicles is generally never reproduced, the place is filled by scar tissue, this as we might infer from the contractility of scar tissue in other parts might tend to produce stricture but it never does Why we are not prepared to say

We have so far spoken of Peyer's patches and solitary glands but these are not the only glands affected, The Mesenteric glands are in immediate relation with the Peyers patches and are invariably more or less involved and especially in connexion with intestinal ulceration They are frequently only enlarged when they may attain the size of a pigeon's egg. Sometimes they are softened and occasionally both enlarged and indurated. In some instances, pus form matter may be traced in the

Anatomical characters

sanious blood which they contain. They are usually only enlarged or indurated, or sometimes injected in fatal cases which have not been of long duration. From all this it would seem that the mesenteric glands experience an analagous change to that of the follicles; that they become enlarged and softened about the same period as the follicles and that, if the disease takes a favorable turn, they are gradually diminished and assume their natural state. Suppuration is seldom observed and according to most authors ulceration never. When sloughing does occur the sloughs separate and are discharged into the peritoneal sac. This likewise an occasional source of peritonitis developed in the course of the disease. The extend to which they are affected seems to bear some relation to the affection of the follicles, as they are most often affected in the neighborhood of the caecum, so likewise are the mesenteric and successively those higher up

Clinical characters

The lesions observed in the other abdominal viscera are seldom such as materially to influence the progress and termination of the disease if there are any they are accidental complications. The foregoing are however constant and are as characteristic of the disease as the eruption in smallpox is characteristic of that disease

The liver is to be frequently found more or less softened It is generally associated with softening of other organs and especially with that of the spleen. This viscus is enlarged in most fatal cases; and according to Louis it is increased to double its size and up, in one half the cases, It is always also softened and at times extravasated with blood.

The alterations of these organs seem to have little or no influence upon the symptoms during life The same we believe may be ordinarily said of the mesenteric glands. Even the ulcerations found in the intestines have no determinate

relation to the phenomena referrible to the digestive tract. Diarrhea is not a uniform result of this lesion and pain is seldom complained of unless at an early stage, or until the peritoneal tunic is perforated. The ochrey appearance of the fæces, can not be depended on as indicative of this alteration.

Many of the symptoms referred by writers to organic lesions of the bowels, originating either in inflammation or irritation, are we believe inseparable from the typhoid state of fever, and are the expression of the disease on the whole economy, rather than on this part in particular.

Lesions of the respiratory tract are not uncommon in this disease. Hypostatic congestion of the depending parts of the lungs is not unfrequently present. Pneumonia is very often developed in the course of this disease. The epiglottis is said by some to be edematous occasionally.

Anatomical characters

The larynx likewise is occasionally involved and most often at its superior aperture. When ulceration is observed at this place it is very apt also to exist in the pharynx, where it is most likely to have begun. The blood varies in the different forms of the disease but even in the milder forms there is a diminution of the fibrin elements. This defibrination of the blood has probably some influence in causing intestinal hemorrhage and also making its arrest more obstinate and difficult when occurring.

The heart is often softened and somewhat discolored this being probably due to the vitiated nature of the blood which is very marked in the severer forms and also in cases where softening of the liver and spleen have been most remarkable.

It is also said that the internal membrane of the heart is discolored in such cases but never presents inflammatory appearances

atomical
aracters

The skin according to our able Prof on Practice shows a characteristic eruption in three fourths of all the cases. This eruption which is of a bright red color usually makes its appearance during the second week of the attack, and is confined to the abdomen. They disappear under slight pressure but reappear when pressure is removed They are commonly known as the rose colored spots of typhoid fever.

The nervous system suffers according to the mildness or severity of the attack. Permanent lesions rarely if ever occur

linical
story

The disease is usually very insidious in its development, differing in this very markedly from typhus which is very often suddenly developed

The time of incubation in typhoid ranges from two days to several weeks. During this time it generally manifests prodromic symptoms

Clinical History

Typhoid Fever

The symptoms belonging to this forming stage are usually chills and chilly sensations in the beginning cephalalgia sometimes very violent, the pain usually referred to the front part of the head, With this comes mental irritability. Loss of appetite, sometimes nausea and vomiting. Epistaxis in a large proportion of cases Pain in the loins and limbs, Looseness of the bowels Lassitude increasing until finally the patient takes to his bed. The first stage is now usually considered to have ended by most authors and the fever established. The second stage now beginning sets in defervescence or death. During the early part of this stage the face is usually flushed. The skin is variously affected but usually dry and hot at times covered with a clammy sweat. When the cases severe the expression of features is one of anxiety and distress Somnolence preceding or alternating with delirium persisting in fatal cases, till it is lost in

coma, and appearing early in proportion to the intensity of the disease. Vision seldom is affected till near the close of life. The sense of taste is perverted. Tinnitus aurium is present in the majority of cases. Voluntary motions are unsteady. The tongue is tremulous when protruded, coated at first with a whitish fur, which becomes yellowish as the disease progresses and is finally changed to a brown color. The diaphragm may contract spasmodically and cause hiccough. Tympanites generally exists this being probably due to a relaxed condition of the muscular tunics of the intestines.

The urine at the commencement is not much altered, but becomes scanty as the disease progresses. Usually high colored and not infrequently deposits a sediment. The amount of urea and uric acid is always above the normal. Albumen is not infrequently present.

nical
story

The urine is of high sp. gr until defervescence which is recognized by the temperature falling in the evening when it becomes copious and of a low sp gr. It is also at times retained in the bladder from a blunted perception. On the other hand it may be passed in bed This may be due to indefference or incontinence

Circulation and temperature are both affected more or less of acceleration of pulse belongs to the history of the disease. Danger is usually considerable after rising above 120 p' minute. Temperature is very variable. If it rises above 103° Far it may be said to be more or less dangerous. Sometimes it suddenly falls to the normal and even below the normal This indicating in general intestinal hemorrhage

The respiratory functions are ordinarily not much involved unless complications supervene, when they are respectively involved

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istory

The mouth and throat are dry and hot and
their is usually great thirst through the progress
of the disease. Convalescence is usually slow like
the development. The average duration being from
one to two weeks. Relapses may occur during
the stage of convalescence and then usually
more severe and more often fatal. Death may
take place from mere inanition, coma, peritonitis &c.

usation

It is a disease which belongs to civilization
it is probably one of the penalties we have to
pay or suffer for the many advantages we have
over the savage, who is said to be exempt from this
disease. It is not restricted within any geographical
limits. From the frozen shores of the Kamtschatka
to the burning regions of the torrid zone all are
alike affected. Climate has therefore no influence
in causation. It is generally classed with
idiopathic affections, but inasmuch as

There can be no effect without some cause, it merely serves as a cloak for our ignorance. It has been observed that the origin may at times be traced to emanations of putrescent organic matter. Sewer emanations cesspools &c - but it often happens that its origin can be traced to no cause whatever we then again refer to our cloak of spontaneity (now meaning) however that there is no cause but simply covering our ignorance as to what the cause may be. It has no regard for social position, the high as well as the low are equally afflicted

Of the predisposing causes age seems to have the most decided influence. The middle aged and young are most frequently afflicted, occurring very rarely in infants and in persons over fifty years. This latter as our able Prof. remarks being due to the functional inactivity of the intestinal glands in after life. We may have and probably

very often do have the typhoid state but as these glands have lost their physiological activity it can not properly be designated by that name.
Sex has no influence, statistics prove that both are about equally affected
In regard to contagion there still exists a divided opinion among medical authorities. That it is so under all conditions we would not hazard to say but that it is so under circumstances we believe could be sufficiently proven. Not in the same way as small pox, by mere contact but communicable from one person to another through some medium as for instance excretaria
The susceptibility of taking the disease is as a rule lost after having once experienced the disease, but as said before relapses may and frequently do occur during the stage of convalescence. The materies morbi is still unknown

Diagnosis

Well marked typical cases may be easily recognized and discriminated from other affections, but some discretion must be used in the early stage and especially if it occurs in children. The diseases with which it is most often confounded are typhus and remittent fever. In regard to the former, in typhoid we have not that a brupt invasion which is so characteristic of typhus. In typhoid we have less stupor of mind and hardly ever any suffusion of the eyes as in typhus. The characteristic eruption in typhoid does not appear till the second week and is generally confined to the abdomen. The spots are maculated and disappear on pressure reappearing again when pressure is removed. In typhus the appear during the first week very often extend to the limbs, are often papulated and not so prone to disappear on pressure. Age of patient and season of the year together with previous history will generally

gnosis

make the diagnosis sufficiently clear from this affection. In regard to remittent the thermometer is probably as good a single guide as any one other. This with gastric distress, locality in malarious districts will in all ordinary cases make the diagnosis comparatively easy. There are many other affections with which it may be confounded and probably none so hard to differentiate as acute tuberculosis. The symptoms are generally alike and if physical signs are not marked it is probably impossible to discriminate till after death when the presence of tubercle in the lungs will disclose the diagnosis. Other affections with which it may be confounded are acute meningitis, pneumonitis and other local affections, but bearing in mind the symptoms and characteristic features of typhoid the more important ones can be very readily excluded

Typhoid Fever

Typhoid fever under favorable circumstances does not give a large pr ct of fatal cases. It is true that the mortality according to clinical records of hospitals show a very high pr ct of fatal cases, but then it is obvious that very often they do not get the patients until the malady has pretty far advanced and then again they generally get patients whose previous condition of the system was very bad. Recovery does take place under favorable conditions in a very great majority of cases. If under such conditions it goes to a fatal issue it is very often due to complications and generally to pneumonitis. Pre-existing disease generally renders the malady more dangerous and of these albuminuria especially. Relapses when occurring generally carry off the patient to his reward and rest. The intensity of the disease rarely destroys life but any intercurrent affection which prolonge the patients

moers

confinement will tend to lower the system and increase the danger

tment

The disease is self limited, we can not check it but we can guide its course, Medical treatment will not shorten it, We can only expect to conduct it to a successful issue, no uniform system of treatment can be laid down. Each individual case requires separate treatment. We are to treat the case before us and not the disease as it were. Medical treatment, if not very judiciously directed may be as injurious as beneficial. It is therefore imperatively required of us that we should determine by attentive observation what the individual case before us at the time or period requires, and not give any remedies haphazard. The treatment then under all circumstances would be expectant. Years ago mercury was the remedy, it was given in each stage of the fever and given

ment

in amounts to produce constitutional effects it was used as we now use Quinine in malarial diseases. It was held that it would not produce its effects unless salivation would be brought about. In Typhoid fever the condition of the blood is depraved there is a rapid waste of tissue due to high temperature and what would be the rationale to give a remedy that would help the further destruction? True we would not discard it entirely, for it is very useful when satisfactorily employed, but under no circumstances should we aim at constitutional effects. In the beginning a nitrous powder is very efficient but not with the idea that it had any specific effect. At times again at the end of the second or third week the tongue presents a yellowish clayline appearance with nausea here again it may relieve by acting as a gentle purge best to give from ½-½ gr of **Calomel** every hour

until several grains have been taken. It will cause the coat to disappear and the nausea to subside in a good many cases

Sulphate of magnesia and soda were thought to have the power of aborting the disease. They are capable of arresting fermentation in outside substances and they were thought of having the same power inside but they have not.

There is generally a tendency to prostration and sustaining treatment must be had recourse to. Loaded stomach must be relieved by an emetic as Ipecacuanha, mustard &c. The nitrous powder in the beginning is very valuable, has a strong power to abort the disease but is not to be continued. Aperients for the bowels as Seidlitz powder, effervesing draught, Veratrum viride from gtts iij-vj to keep down the pulse cold to the head ice cap is very valuable

Typhoid Fever

ment When cerebral disturbance becomes marked, the head should be shaved. When the pulse increases in frequency and weakness stimulants are indicated. Turpentine stupes are of value at times. The oil of turpentine taken internally opposes ulceration of the intestines, this is shown by a red dry tongue then again at times the furred coat comes off in big pieces and the surface underneath is very dry, this condition indicating that the ulceration is still going on and turpentine again indicated. It should be given in doses of gtts x every hour, best given in emulsion and disguised by the oil of lemon. The oil of lemon is chemically the same and is better than anything else to disguise its taste. Diarrhea is to be held in check by the use of chalk mixture and Bismuth subnitr. - Whenever prostration occurs stimulants should be given, these are best to be given

in small and repeated doses. The bladder should be frequently examined and if distended a catheter should be passed and the urine withdrawn. Bedsores should be guarded against Rest should be obtained by the use of opiates Dovers powder if not otherwise. In case of hemorrhage from the intestines kino in teaspoonful doses Patient should have a supporting diet in liquid form. Whey two parts of milk with one of wine boiled and strained is very valuable. His stomach should never be overloaded, he should receive small doses at short intervals. Hygiene regulations should never be neglected. Great care must be exercised during convalescence as to diet & rest he should have a relapse

Francis O. Ritter

A
Thesis on Syphilis.

By

James H. Warren.
of
Harrisonburg. Virginia.

1881.

Syphilis.

The term syphilis as I understand it is applied to a class of diseases which commence in the genital organs in the form of a sore of a specific character, which may and often does, invade the lymphatic glands of the groin, the cutaneous and mucus tissues, and finally also the bones and cartilages and fibrous membranes, leaving upon each and all of them, and the system at large, a peculiar and distinctive impression which is one of the distinctive characteristics of the disease. These different parts do not all suffer at the same time, it seemes to be necessary that the poison upon which the infection

depends should lie for a certain time in the tissues in which it has been deposited, in order I suppose to prepare it self for further action,
Thus in the first instance the operation of the poison is local, after lingering for some time at the point of infection, the cutaneous and mucous surfaces begin to suffer and at a still later period the bones and viscera are attacked, in this manner are produced three distinct groups or stages of syphilis, known as the primary secondary and tertiary,
I suppose it would be best to give a short history of the disease before I proceed further upon the diseas.

History.

If the records of antiquity could be fully explored I have no doubt that we could discover the most satisfactory evidence of the existance of syphilis in the most remote periods of society. The origin of the world and that of prostitution are as it were coeval, and it is to prostitution that we must trace the origin and propagation of all infectious diseases of the genitals. The first account of any disease which resembels syphilis I find in the time of king David. It is said that Abigail the wife of Nabal, communicated to her royal lover king David a disease which I think

must have been syphilis, though I can find but little history of the disease, but I suppose that the same causes which now produce it operated then and in greater force for then men did not hesitate to obey the inclinations of their appetites, the abuse of this desire and a neglect of cleanlinces must have frequently led to affections of the genital organs, and it is more than likely that syphilis held an important station among them, We know that prostitution was far more common in the time of the ancients than in modern times we know that every ruler had besides four or five wives a large number of concubines

and where prostitution was indulged in to such an extent as that is it to be supposed that venereal diseases would be absent, I think that syphilis should be included among the many curses that our forefathers have handed down to us, Some of the english writers seem to think and infact contend that it never made its appearance in the old world until after the discovery of america but they have but little to substantiate their writings.
It is true that syphilis first began to attract attention about that time but the moste provable cause of the out brake was the invasion of Charles the Vth where a vast assemblage of

men living in a different climate in intemperance and debauchery amidst fatigue and privations, will give undoubtedly to a disease additional virulence and intensity. The French attributed the disease to the Neapolitans, and the latter to the French, but it is more than likely that the disease was in both armies, only becoming intensified by their indulgence in intemperance and debauchery. The precise nature and origin of the disease we know little or nothing of. We know that the disease arises invariably from inoculation with a peculiar poison known as the poison of syphilis, and resulting in a sore

yielding a virus in every respect identical with that which furnished it in the first instance.

Causes

Syphilis is either inherited or acquired. Persons of all ages may contract this disease it does not seem to have any particular predilection for age, sex, temperament or occupation, all are alike liable to be afflicted by it. The syphilitic virus may be communicated in various ways, the first and most common by sexual intercourse by kissing or sucking through the agency of mucous patches on lips, tongue, or nipple by linen towels, pipes, spoons pencils by surgical

instruments, sponges, dressings &c.
by water closets accoucheurs sometimes
inoculate their fingers in examining
women labouring under chancre of
the vulva, vagina, or uterus, it is
also communicated by vaccinating with
lymph taken from infected lesions,
syphilis has also been communicated
through the media of cigars
I have seen accounts of several
instances of this kind, the cigars
being manufactured by persons
suffering from constitutional syphilis,
their lips being covered with mucous
patches, and they being in the habit
of finishing the cigars by moistening
the ends in their lips to make the

sharp point. All of the authors that I have consulted on the subject say that syphilis cannot be communicated through the media of the saliva, if it can be communicated through the blood why is it that it cant be communicated through the saliva as the constituents of the saliva are derived from the blood and if the blood be affected how can the saliva escape and if the saliva contains the poison I can see no reason why the disease canot be communicated through that media. The course of syphilis varies according as the disease is hereditary or acquired, inherited syphilis

has no primary stage but is general from the start. A typical case of acquired syphilis is usually described as going through three stages known as primary secondary, and tertiary syphilis.

Primary Syphilis.

The period of incubation intervenes between the time of inoculation and the appearance of a chancre, this period of incubation differs at different times and in different persons. The average period of incubation is from two to three weeks. But cases have been recorded in which the period of incubation has lasted for a much longer or shorter time. Bumstead says that rarely if ever does the syphilitic chancre appear from

the tenth day and chancroids rarely appear as late as the tenth day this is one of the most valuable marks of a true chancre so that all sores that appear later than ten days after suspicious contact may be regarded with suspicion. Primary syphilis consists of a chancre and bubo that is a swelling of the lymphatic glands of the groin often eventuating in suppuration and other bad effects so long as the disease is limited to these it is strictly local but when it passes beyond them it affects the system and becomes constitutional. The first symptom of syphilis is invariably a chancre. The chancre assumes various forms. The deep chancre is

usually the forerunner of a severe case of syphilis, while the superficial indicates that the case will be mild, but either of these may assume another form known as the phagedaenic chancre. Induration is a characteristic feature of all forms of chancre when present, or can usually distinguish the difference between induration and the inflammatory thickening and hardness which sometimes surrounds the chancroid by the sharply defined limitation of the true syphilitic induration. The true chancre is in most cases solitary thus differing from the chancroid which is commonly multiple. The chancre is not autoinoculable, if autoinoculation be

practised a sore may be produced but not a chancre. For syphilis like smallpocks and many other affections viz that one attack protects the patient for a time at least from a subsequent infection, the duration of the chancre is self limited usually healing without treatment in a period varying from a week or two to several months, enlargement and hardning of the neighboring lymphatic glands are constant sequels of chancre the inguinal glands are usually affected constituting the syphilitic bubo the duration of the bubo usually lasts longer than the induration of the chancre.

Secondary Syphilis.

[illegible] shown that if the disease is acquired [illegible] to suffer are the cutaneous and mucous [illegible] consecutively, or one may suffer and the other escape. Between the time of the appearance of a chancre and the time at which secondary symptoms are developed there is an interval which is called the period of incubation. This period varies in different cases. The average period is about six weeks. Secondary syphilis is usually ushered in by marked constitutional phenomena, fourteen days or eight or ten days before

there is any [illegible] the patient feels unwell, he is languid and unable to apply himself to his business, there is generally some slight emaciation, his countenance has a dull muddy aspect, hair dry and rough, his limbs and joints are sore and stiff, the appetite is impaired, the bowels are costive & the [illegible], he is soon fatigued, his sleep is unrefreshing, gradually or it may be suddenly he is seized with chilly sensations, sometimes without rigors, followed by fever. These symptoms usually disappear when the eruption and other secondary symptoms make themselves manifest. The most characteristic manifestations of secondary syphilis are cutaneous

[illegible] and the [illegible]
enlargement of the lymphatic glands,
usually or hair falling out of the hair, and
sometimes affections of the eyes and ears
paralysis or the mild form of syphilis
the disease is said to wear itself out in this
stage, with no recurrence of tertiary symptoms.

Tertiary Syphilis.

When the specific poison has become
thoroughly mingled with the blood, constituting
the system and becoming imbedded in its different
structures, the effects which we produce
constitute what is known as tertiary syphilis.
The boundary line between secondary and
tertiary symptoms is not always well
defined, the former often merging
by gradual gradation into the latter.

The disease, based on the appearance of tertiary symptoms, is given in a few months after the exposure of the poison, although in many instances they do not occur until a number of years after the appearance of the primary chancre, the poison having been all the time in a hidden recess only waiting to be roused, and when once roused into activity it rapidly extends through the system overwhelming it in its progress, it attacks almost every tissue and every organ, and leaves upon them an impress that will never be removed, the structures which generally suffer in tertiary syphilis are the skin, mucous membrane, periosteum, bones, joints, cartilages, tendons, and testicles, all parts

the cornea may become involved, and in very bad cases kindles any part of the eyeball, the eyes are often affected. The most forms of syphilitic iritis occurs during the tertiary stage, the ulcer called gummata are sometimes involved, permanent disorganization brings them apt to recur, in this stage the nervous system is more than apt to suffer the brain and spinal cord are sometimes attacked, when these organs become the seat of the disease, it may manifest itself in different ways, but it most commonly manifests itself by the appearance of mental imbecility, epilepsy, paralysis, or muscular twitchings &c, as before mentioned any tissue and organ of the body may be attacked by this disease, and I suppose it is

necessary for the state of the organ is afflicted when it is the seat of the disease.

Treatment.

As syphilis is a constitutional disease the treatment of it must be constitutional. The most [illegible] of syphilis is mercury. The use of iodide of potassium.

Treatment of Primary Syphilis.

It is believed by some authorities that primary syphilis should not be treated with constitutional remedies that it is better to wait before — constitutional treatment until the onset of the secondary stage. I should think that as the disease is constitutional it would be best to begin

with constitutional treatment, as soon as the disease had made itself manifest.
In the treatment of human syphilis the treatment must be local and constitutional the local treatment having for its object the destruction of the poisonous character of the sore, the constitutional treatment is intended to facilitate this end if possible to prevent constitutional infection, if it will not prevent it will at least modify.
The local treatment consists of keeping the parts clean and the application of some caustic as the surgeon may think best, the best caustic that we can use is the strong nitric acid it is not more painful than the nitrate of silver, and in one application it will accomplish more than three or four

applications of the nitrate of silver. After the application of the caustic parts should be well washed with warm water and then light poultice or water dressing should be applied. The caustic should be applied until a healthy granulating surface is produced. If the sore be much inflamed the caustic should not be applied until the inflammation has subsided. Syphilitic Bubo. Attempts should be made to promote resolution by fomentation, or by the employment of discutient applications. The inunctions generally used are mercurial or iodine oint. or in combination with oint of hyoscyamus or stramonium, if suppuration occur troublesome sinuses will probably be left which must be treated on general principles, constitutional treatment, the fomen-

either one may be about the best remedy
I can use, and it is best given by the mouth.
A very good way to give mercury is to give it in
combination with opii for the opii prevents
purging. I dont suppose it makes much
difference which of the preps of mercury
we use the bichloride is very good, giving gr. one
sixth or gr three times a day, we must be careful
not to produce salivation, bowing on the
disagreable effects, the mercury should be
discontinued as soon as any tenderness of the
gums is perceived if necessary we should
give tonics &c. Secondary stage, the course of
treatment in this stage is very much like
the preceding, the use of mercury is generally
acknowledged to be proper though sometimes
its use is prohibited by the constitutional

condition of the patient, in this stage some writers prefer the mercurial unction or fumigation, but if the stomach and digestive organs be in good condition, I think it would be better to give the mercury by the mouth. In this stage of the disease we will often have to use tonics. The mucous patches may be cleared by touching them with nit. silver or acid nit. of mercury. If syphilitic sore throat occurs we must use gargles of chlorate of potass or some of the mild caustic applications. In the latter part of this stage we may use the iodide of potassium in combination with mercury. Tertiary stage. We may use mercury also in this stage, but the iodide of potassium is better adapted to this stage. If we use mercury we should use it in

combination with the iodide of potass
the iodide of potass should be given in
large doses say from 15 to 25 or 30grs three
times a day. We can give the iodide alone or what
I think would be better in combination with
some of the bitter tonics or cod-liver oil, for the
syphilitic ulcers the black wash is often used, iodoform
either in powder or not. For affections of the throat some
of the astringent gargles or caustic applications may
be used, Tonics are nearly always indicated in
this stage The best is quinia or iron or some of the
bitter extracts, cod-liver oil &c.

Respectfully

James H. Stevens

— Anaesthetics —

When the All Omnipotent God, breathed forth, those magic words, of "Let there be Light", and this wondrous universe, flashed into being, and beauty, and Time was. Then man stood up, in the awful presence, of Nature, and of Natures God:- yet-the-while, God-like, in his glorious soul- Then man, knew no sin knew nothing, save his own peace, and happiness, and had he not fallen, he might have lived on forever, and forever, in the wholly satisfying bliss-

But man sinned, and with

his sin, came his doom. He was dethroned, from his exalted position, in Paradise, and no more "gifted, with the gift, of immortality" he was forthwith destined, to become a creature of Time — and being, a creature of Time, he was doomed to suffer, Time's greatest scourges — Change - Decay and Death - Since then, man has wandered, over many, "barren ways", and been afflicted, with many ills, - but of all the great evils, it has befallen, his lot, to suffer, none render, life so miserable,

and transforms, radiant, and smiling faces, into looks, of anguish, and despair, as that, "dread destroyer, — "Pain"
But the "all wise Maker," in his "Infinite Wisdom", has ordained a minister, in the person of the Physician, to conquer, this great Enemy, of Life, and Happiness; to transform homes of weeping, ~~and~~ into homes of gladness, and rob the wrathing countenance, of its throes, and kindle once ~~more~~ again,

"Former smiles,
In faded eyes, that long have wept"

Many and varied, are the Physicians, resources for overcoming pain; he has his great "Pain-Killer" Opium;- his "Sleep-producer" Chloral Hydrate;- but when unbearable, and agonizing pain, is to be speedily overcome, no class of remedies Equals, or supersedes that, of "Anaesthetics"

Little did, the great Chemist Sir Humphrey Davy dream, that when he was Experimenting with, Priestly's "Nitrous Oxide Gas", that he was - then, laying the foundation, of a process, that was to completely, revolutionize Surgery,

and contribute to Medicine, one of the greatest boons, it has ever recieved.—
Disputes are rife, as to who was the first, who had the heroism, to use an "Anaesthetic" in a surgical procedure,— but I think the honor may be rightly, and justly claimed, by an American, of our own Country, be he Either, Dr Long of Athens Georgia, or the "obscure Dentist", of Connecticut:—
The "Modus Operandi" of "Anaesthetics", upon the Economy, has not as yet, been satisfactorily established, although it is

morally certain, that the ultimate result, is the paralyzation of the motor centres;
The first perceptable effect, upon administering an "Anaesthetic," is a general exhilaration;- the heart acts more frequently, and the breathing is more rapid; and the numerous phenomena the patient exhibits indicate cerebral intoxication.-
This stage of excitement, will be different, in different individuals,- being more pronounced, in the Mercurial, and Nervous.- From this state, the patient may be aroused,

and the sense of touch, may be preserved, although that of Pain, is greatly diminished.- If the inhilation be continued, the "Patient gradually merges, into the stage known as, "complete insensibility."- In some cases all this, is accomplished quietly:- Especially is this the case, in the weak, and sickly, but in the robust, a stage of "Tetanic Convulsions," usually occurs, or as, Dr Bartholow describes it,- "Similar to the Tetanic stage, in Epileptiform Convulsions;" But under the influence, of the "Anaesthetic", this stage, soon passes off,

and the patients, muscular system, becomes perfectly relaxed.
Reflex action, is temporarily abolished, and the functions of the brain, are suspended, save those two great functions, presiding over, the circulatory, and respiratory apparatus.
If now, the inhalation be withheld, the patient will gradually recover his lost powers, but on the other hand, if it be continued, life will ultimately, be distroyed.
The modes of dying from Anaesthetics, are variable. The hearts action, may be suddenly arrested, especially is this the case, when

the patient, is brought quickly, under the influence of Chloroform,- Death in these cases, is generally due, as Brown-Sequard remarks, "to the sudden irritation of the branches of the "Par Vagum" nerve, in the lungs,- that Chloroform has killed in the very rare instances, in which the heart's action, has been stopped before respiration",-

From the above quotation, it would seem, that the function of respiration, is generally suspended, before that, of the circulation,- and such in practice, we find to be, the case, and

in general, although not always,- and death may be due, to either, of these causes.
The autopsies made, on those who, have died, from the effects of "Anaesthetics", reveal, but few, "Post Mortem" changes.-
The cavities of the heart, are usually found, very much distended, and exceptionally, the left side, is emptied, of its contents.-
The treatment, of the dangerous symptoms, arising, during the course, of the administration of an "Anaesthetic", may be comprised,

in a few words,-
If the hearts action, becomes suspended,- inversion of the patient, according to the method of Nelaton, should be practiced.- with a view, of throwing what blood there is in- to the brain,- for death from Chloroform, Especially, is due to Cerebral anaemia,-
If on the contrary, the respira- tory muscles, become paral- ized.- "artificial respiration", should be, immedeately resorted to.-
We might use other means, but the above, are the most

important.- The Fomentation, of the chest muscles; sub-cutaneous injection of Alcohol in some its forms, and the intra-venous injection, of Amonia, have all been practiced, more or less;- but they all, must yield in importance, to the first two-

The Mortality of Deaths, resulting from the use of Anaesthetics, is exceedingly small, being about 1 in 3000;- yet small as it is, it is "Enough, to forbid their use, in trivial cases, but not Enough, to do so, in capital operations, or where,

for purposes of Diagnosis, it is required."-

All persons, are not favourable subjects, for the exhibition, of an "Anaesthetic;- Disastrous consequences, may ensue, to those, who are troubled, with any throat affection, whatever - with Emphysema; or with cerebral humors.- Those suffering, from "fatty degeneration" of the heart, are most liable to accidents, and "more death has ensued, from this cause, than any other."-

It would be, a great omission, on my part, were I to

overlook in this treatise, some of the most important rules, relating to the administration, of "Anaesthetics". Some of them, I have incidentally referred to already; nevertheless, there are others, all important, which, have been neglected.
I have examined, several "sets of rules", relating to the subject in hand, and I could find none, which had, a greater bearing, on the practical administration, of Anaesthetics, than those adopted, by the "Chloroform Committee" of the Royal Medical and Chirurgical Society of London in 1864.-

1° Chloroform should on no account be given carelessly, or by the unexperienced; and when complete anaesthesia is desired, the attention of the administrator, should be wholly given to his patient.-

2° Anaesthetics, should not be given after a long fast, nor directly after, a full meal;- the best time to give them, is about five hours, after the patient, has taken food-

3° If the patient is much depressed, and to guard against failure of the heart action, wine, or whiskey, may be

taken, before the administration of an "Anaesthetic"

4° The recumbent position should be preferred, as in the erect, there is always danger of syncope.=

5° Chloroform should be given slowly, and freely mixed with air, and no special apparatus, is necessary for its administration, and should a napkin, or towel be used, it should be folded in cone shaped, and held an inch, or more, from the face.

6° The respiration, and pulse, should be carefully, and

continually watched, and any sudden livedity of the face, or lips, should receive, prompt attention.

I have tried to give, the most important of the rules decided upon, by that "Honorable Body", and although, not in the exact words of the original, yet they are substantially the same.-

And last but not least, we come, to the uses, of "Anaesthetics" in Medicine-

They are numerous and various. It would be superfluous for me to record,

them, since they are so well known, and can be disposed of, in a few words—
Suffice it to say, they are used in all surgical operations of any moment,—involving great suffering to the patient: as a means, in assisting, in making a Diagnosis— and to allay, great pain—
As we to-day, standing in the bright light of the Nineteenth Century,— look back, through the dim vista, of by-gone years;— and compare Surgery then, to what it is

now, we can readily see, how "An-
aesthetics, have completely, rev-
olutionized the art, and
transformed a barbarous
practice, into one consis-
tent, with humanity and
feeling. The amputations
were regarded with fear
and terror, and almost
looked upon as the pre-
cursor of death;- but An-
aesthetics, have rotted Sur-
gery, of all these over
awful terrors, and con-
verted it into a civilized
science;- so that to day it
stands upon as high a

pinnacle as any of its sister branches. And ~~were~~ was the discover of "anaesthetics" alive to-day and could he see the great service he has rendered, to ~~his~~ the public, ~~fellow~~ man and to medicine, he might well, like the great Ambroise Paré, ~~Paré~~, thank his Maker that he had been the means, of ~~great~~ ineffable bestowing on man, so a blessing —

Respectfully Submitted

Jno. S. Knight

A normal ideal eye is a dioptric visual organ in which the axis of the eyeball is of the same length as the focal distance of its refractive media; parallel rays being taken as the standard. Such an eye is designated "emmetropic." An eye being deficient in the above qualities is designated "ametropic," which may exist in the two contrasted forms. In one in which the axis of the eyeball is longer than the focal length of the refractive me

dia, — the other in which the axis of the eyeball is longer than the normal length of the antero-posterior diameter.

The former condition is known as hypermetropia, hyperopia or brachymetropia. The latter as myopia or macrometropia.

Hypermetropia, or brachymetropia, is that form of ametropia in which the parallel rays of light are focussed behind the retina. Hence, when there is accommodation, the image on the retina is clear, but the eye has to exert more than the normal

denying media of the eye. The fact of constitution, as represented in the eye, of the optic, optic spirits, or the subtle of equivalent parathermanism, that are not in, around the more frequently finite, especially penetrated, danced by [illegible] the eye is in a [illegible] yielding state, for the other organs in the body. The eye then is [illegible] in [illegible] connected [illegible] of [illegible] and [illegible], a [illegible] [illegible] organs, [illegible], [illegible] the [illegible] and extra [illegible]

muscles are thrown into action, increase in the contents and tension of the organ must result and the organ being in a congested [illegible] [illegible] state as found in the child [illegible] [illegible] the quick vision. Failing failure of the accomodation — the [illegible] of the optic nerve, and of the continued abnormal tension its contents [illegible] the [illegible] of the tunics of the eye a posterior staphyloma with results rendering the organ elongated and [illegible]

afflicted with permanently
weak sight and diseased
eyes. Still the owner of an
eye in the growing state,
does breathe, and in the
possession of oxygen,
it is only necessary to re-
peat the exercise for compla-
cency. For instance, the
experiment in the bubble
attached to the bellows,
passed in order of Stevenson's
children experiment. What
is there to be studied? I
know a day out of school
an increase in oxygen of
4 per cent, in those cells

[illegible] [illegible],
cent, and in those who
studied six hours [illegible]
[illegible] showing an increased
[illegible] with the [illegible]
of application, [illegible]
some of the [illegible]
characters of the higher schools
of Europe statistics show
30 per cent of nearsightedness
[illegible]. On other causes producing myopia, by increasing the length of the axis of the eye is a bulging forward of the anterior portion of the eye called conical
cornea, which however is a

non affection and dark
not explain one case in a
thousand. Other causes
acting, not by increasing the
length of the eye that is in
correcting the refractive power
of the crystalline, may produce myopia: as it
shows in the "second sight"
of old age, where from the
imbibition of fluid the lens
swells within its elastic
capsule becoming thereby
more convex, and hence
generally more strongly myo-
tifying, thus enabling near
vision for very small objects,

but only for a time, as it
foretells inevitably the formation of a cataract.
The other most prominent symptom which is suspicious is
opacity of the pupillary margin
the increasing thickening
and consequently the non-
refracting power of the crystalline lens — producing
that form of nearsightedness called "myopia," which may be cured
with, and is in fact often
produced by, the opposite
condition, hypermetropia, in
which the constant action

of the ciliary muscle acting regularly both for distant and near vision, produces irritability, and if continued permanent spasm of the ciliary muscle, which shuts upon an ordinary examination for hypermetropia would mask the true condition, and give all the signs of nearsightedness. This condition can only be recognized and neutralized by the paralyzing influence of atropia being instilled and without it such a satisfactory examination can not be

made. Test for amaurosis. Shut one eye tight with pappy, the other vision establishes the diagnosis, or it may be determined readily by numerous lenses improving distant vision; or again with the ophthalmoscope the determination is easily made. If amaurosis the fundus is a bright red, as in the healthy eye, but images can be obtained without the intervention of an object lens, and in all the cases when the object lens is employed for the inspection of the fundus by the mind

[illegible] of the optic
disc, the blood vessels and
other details; also being gi-
ven by the "myopic crescent"
or zone of choroidal atrophy
around the optic nerve, fre-
quently in the manner as
above described. The myopia,
as well as the existence of
myopia is also shown by
the ophthalmoscope: the lig-
ing [illegible] being at most
the nearest convex lens
which when placed behind
the mirror, affords the best
clearly defined orientation
of the fundus, determines the

degree of accuracy with the
glasses required. It may also
be accurately determined by
the optometer - by which process
giving the ciliary movements,
when rays of light from
any luminous point
are brought to a focus on
the retina upon a given point
for another distant point on an
optometer being adjusted
parallel, should be next,
by a movement of the eye at that
point, of such but nearer,
the difference then between
the point at which it is
found and the point at
which it should be next,

given quantity, the space of any object, and the strength of glass required.

Particularly the focus any but divergent rays being the object in this respect or operation, and varied under having the power of accommodating large divergent; they become at once the necessary, using particular care in the proper selection of the array by means of the optometer, or optometers, as shewn, pointed out.

Hyperopia or longsightedness

Co-ordinated parts of constituents in which the parts concerned in processes behind the retina. Off away axis from defective length in the axis of the eye ball, or from defective refraction in the refracting media of the eye.

The first consideration or defective length in the axis of the eye away axis, like other defects from congenital constitution. The latter consideration or defective refraction in the refracting media, away axis from absence of the organizations concerned.

or by extraction per internal a condition known as "phakia," giving rise to an extreme degree of hypermetropia.

In this anomaly of refraction, hypermetropia, the patient unlike in myopia, has in the action of his ciliary muscle, rendering more convex the magnifying lens, the power of obliterating a portion, and even all of the condition, if the hypermetropia be slight, or his power of accommodation be extensive; hence in the estimation of this condition the action of the ciliary muscle

rendering latent a portion of the hypermetropia must be taken into account, and to estimate the condition entirely. The action of atropia should be invoked, and during complete temporary paralysis of the ciliary muscle then rendering "manifest" the whole amount of hypermetropia. The existence, and the degree of hypermetropia accordingly can accurately determined by several methods. — The weakest convex lens giving the best distant vision, the ciliary muscle being at rest, will be

determine readily the degree of hypermetropia or by the same the determination is equally easy; a normal eye should read, with the accommodation at rest, rays of light coming from a point ten inches distant or an optician through a ten inch lens the rays of light being parallel, if not but further, the difference between the two points gives exactly the degree of hypermetropia, for instance if rays of light coming from a point 12 inches distant can be received they should be seen

or near at only, in which the difference between 40 and 60 is the degree of hypermetropia and the strength of the glass required for its correction. With the ophthalmoscope the degree and presence of hypermetropia may be determined; the accommodation of the patient and observer being at rest, the meniscal convex lens giving the best clearly defined erect image of the fundus determines the degree of hypermetropia and the glass required. In this affection the act of accommodation being constantly and excessively required disturbance between it and the act of convergence occurs by which, through the excessive degree of accommodation required, for vi

can to a great a degree of correspondence through like nervous influence, is conjointly produced to retain the parts of each retina in both visual axes at the same time and disappear or double vision consequently results, which is very annoying and to obviate which the patient instinctively relaxes his external rectus, which he can do being provided over by a different nervous centre, allowing a still greater degree of correspondence in the one eye, while the other

maintaining vision and the preventing internal strabismus or squint. so common in this affection.

Instability of focus may not convergent rays being thrown to point in the eye of refraction, and convex lenses having the power of converting rays convergent, they become at once the remedy. Myopia is unchanged by the operation or operations in the manner as above pointed out.

Presbyopia or old sight the last one only of refraction in which lens is used of no

accommodation; arising from impairment of the elasticity of the crystalline lens as a physiological process, incident to old age, and to which all are subject, and from which none with normal eyes escape. It begins at about the 40 or 45 year, and continues to increase progressively through life or until accommodation is entirely lost. By the continued gradual hardening of the lens in this condition of presbyopia, a constantly increasing accommodative effort on the

part of the ciliary muscle is required, while no similar effort is necessary on the part of the muscles of our vessels; a difference between the harmonious action of the two functions thus results, producing, when the eyes are called into use, sensations of straining and fatigue which materially interfere with good vision. Hence glasses should be always employed, for near work, if there be the age of 40 or 45 suffering from presbyopia, and should not be changed

either from false pride, ignorance, or prejudice, at the injurious expense of the eye sight as well as present comfort.

In the selection of glasses for the relief of this affection the respective merits of the two above mentioned minute relationships, existing between the rate of convergence and accommodation. The weakest convex glass restoring the last power of accommodation to the normal point, is all that can be allowed, and any further

hypermetropic eye of accommodation, although it will do so, must not be anticipated but postponed from time to time as it may be manifested, for a stronger lens would disturb the whole relation of things, a weaker one would not correct it. The consultation of myopia or hypermetropia can be made by determining: for an emmetropic eye distant vision is infinite and extends from the horizon to a point within or nearer of the eye, though the act of accommodation but an presbyopia has no-

accommodative action is impaired or lost, near vision decreasing in proportion. The degree of impairment determines the degree of presbyopia, and is shown by the difference between the near point normally and that of the eye under examination — farsightedness, if one can only read at 10 inches, and should read at 8 inches, the normal point; the difference between $\frac{1}{10}$ and $\frac{1}{8} = +2$ is the glass required, and the degree of presbyopia present.

Abstigmatism

is that condition of the eye in which there is unequal refraction in the different meridians of the cornea or lens.

The defect is however generally found in the irregularities of the cornea, it being more convex in the one direction than the other; a familiar example of which condition is shown in the bowl of a spoon. The defect may exist congenitally or be acquired, as from contractions of a cicatrix consequent upon a corneal extraction, involving corneal ulceration. The presence of astigmatism is of easy recognition

and can be determined by the fact of the lines in one direction or meridian appearing more distinct than in the other, if most distinct in the horizontal meridian, astigmatism exists in the vertical direction or diameter of the eye, and vice versa, always being at right angles to each other.

The presence of astigmatism may also be determined, with more or less accuracy, by means of the ophthalmoscope. — In the inverted image, the optic disk of an astigmatic eye appears elliptical with its major

axis in the meridian of the least curvature of the eye. In the erect image, there is unequal distribution of the blood vessels which run in different directions, corresponding in their tortuosity, irregularity, as to the direction of the astigmatism. The defect is corrected by cylindrical lenses, by having the power of refracting rays of light to or from a line parallel to their axis. Convex if the astigmatism be myopic, concave if the astigmatism be hypermetropic, with the axis of the cylinder placed in the same direction as

the astigmatism. The number of glasses neutralizing all the lines to equal distinctness measures the degree of astigmatism and gives the glass required for its correction.

Chromatic Aberration.

Rays of light are compound in their nature being composed of seven different elements of color all differing in the degree of refraction by any single attribute and therefore incapable of being combined by effecting any single focal point. These points are to what is known as chromatic aberration

on looking of the object instead
at with a Bunge of various
colours. His distant spire in the
[illegible] of [illegible] of the
perpendicular [illegible] looking [illegible] a
distant plane covered by a
blue cobalt, [illegible] with a
green [illegible]. The [illegible]
and violet but observing the
yellow and green rays of the
spectrum: and we [illegible]
[illegible] [illegible] [illegible] of
a deepened [illegible] plane [illegible]
surrounded by a white [illegible]
of blueish violet, which if
an eye [illegible] astronomer,
should see without [illegible]

a lens. The error of chromatic aberration may be effectually corrected by the combination of lenses of different refractive powers — as crown glass and flint glass, which when properly combined refract all the different rays of light equally, giving a clear white achromatic image.

Spherical Aberration.

Is an error of refraction, arising from unequal refraction by all parts of a spherical lens. The periphery of a lens being less approximately par-

allel than the centre and consequently more refractive, parallel or plane surfaces not being refractive, thus giving rise to what is called spherical aberration, which is prevalent, not only in the common lens but in all lenses, but in the eye by the action of the iris cutting off the peripheral portion of the lens, allowing refraction only by the more central portion which being comparatively parallel transmits the rays of light with a minimum of aberration, and thus greatly obviating the condition.

Other defects and errors of refraction exist in the eye, as shadows and specks, from the fibrillated structure of the crystalline lens and vitreous body, nuclei of cells etc not being perfectly transparent, give rise to errors of refraction which render the eye, as an optical instrument not perfect; but as a visual organ it reflects the perfection of Him that made it.

Barlow Pitts

Class 81

A

Thesis on Typhoid Fever.

By

Manning P. Smith.

Of

South Carolina.

1881.

Typhoid Fever

While every subject connected with the study of medicine, is interesting to the student, some are much more attractive than others. It may be because one will permit of greater research into the mysteries of the healing art, than another, or it may be from daily contact with one disease, with all its changes, which would inspire the student, to learn if possible, its many forms, and to be versed in all its varieties.

Of all the diseases to which the human body is liable, we know of none, which affords so wide a field for study and observation as typhoid fever, which is not limited to age, or clime, to sex or sex. The rich in their splendid homes, surrounded by all that make life pleasant, and agreeable, are not proof against its subtle powers. The poor, in their miserable hovels, wanting many of the necessaries of life, often terminate

their existence into a good.
It is a low form of continued fever, self limited, and characterized by a rose colored eruption, with inflammation of Peyer's patches, enlargement of the spleen, and disorder of all the functions of the body.
The cause of this disease is not fully understood, by some it is supposed to be the result of some chemical change which takes place in the excreta, from one who has this disease, and that it is

impossible for it to originate from the decomposition of vegitable, and animal matter, without the presence of the typhoid germ.
Therefore it cannot exist in any filter, without the introduction of the germ, from one who has this fever. Now, while decomposing vegitable, and animal matter, cannot of itself produce this fever, it will form a good medium for the development, and spread of the germ.
The seasons modify the

transmission of this germ to a great extent. The Fall and Winter months are much more favorable to its production, than either Spring or Summer.
Age is a predisposing Cause. The young and vigorous are much more susceptible to its influence than extreme youth or age.
Men as a rule are much more liable to become the victims of this disease than women, this no doubt is due to their vocations compelling them

to be more exposed to the influence of this poisonous germ.

The poison may be carried from one Cude to many others, through the atmosphere, or the water which is used for drinking, or even in milk. This fever is so insidious in its approach that it is almost impossible to see the exact period of incubation, though it is generally estimated to be from two to three weeks from the time of exposure to the disease.

ofment of the fever. As a rule this fever comes on gradually, the patient being unable to tell the date the first symptoms of the disease made their appearance. The first stage is marked by lassitude, and a general feeling of weariness. Headache is almost always present. During this period the patient may be able to sit up or even to attend to his customary duties, though he will become exhausted by very little exertion

and will complain of chilliness, for several days. His sleep will be disturbed by dreams, and is unrefreshing.

After a few days the fever begins, the debility increases he does not feel able any longer to sit up, or move about, but takes to his bed.

In other cases the fever may be preceded by a marked chill, especially is this the case in malarious regions. During the first week of the

fever there will be violent headache, which is increased by light or sound.
The appetite is gone. The tongue is red and dry. Epistaxis is common though not always present. There is a tendency to diarrhoea. The patient will be very restless, and complains of pain in the back and limbs. At the beginning of the second week there may be some delirium, of a low muttering type towards evening, or it may be of a more

active character, the patient will try to get out of bed, or even to injure himself. When the delirium is of a violent character, there will be great increase of temperature, the pulse will be greatly accelerated and the symptoms will show extreme illness. These cases of violent delirium are very rare. it is usually of a low type and the patient may be roused to some extent when spoken to though often with difficulty.

At the end of the first week, or the begining of the second, a rose colored eruption is seen on the chest and abdomen. These spots are slightly raised and give diaphanous on pressure. The same spot does not last for more than four or five days, before it is succeeded by another which runs the same course. They give all disappearance by the end of the third week. At the close of the second week all the

symptoms will be aggravated
the patient will be roused
from his stupor with
difficulty, if at all. In the
first week of the fever
there will be morning
remissions and evening
exacerbations getting
higher every day. In the
second week the fever
is continuous, in the
third it is remittent, and
in the fourth intermittent
gradually getting less every
day until it disappears
entirely. If the case ends
favorably, during the

fourth week, the symptoms begin to subside, and the patient is cognizant of his condition. His rest will be less disturbed by dreams and far more refreshing. The diarrhoea will cease, all of the abdominal symptoms will disappear. There are many things which influence the termination, and course of this disease. High temperature and the duration of the fever, are among the principle causes of a fatal issue of this

disease. Whenever the temperature remains over 104° Fahr. the danger is great. The prognosis is much more unfavorable in the old than the young. The constitution and habits of the patient have to be taken into consideration. In those who are accustomed to use alcoholic stimulants to excess, the fever is very apt to terminate unfavorably.

Of all the complications of Typhoid fever hemorrhage is the most to be

fever, it may occur at any period of the fever but is most common during the second or third week, and is produced by the slough laying open a blood vessel. Even if it does not escape externally, it can be recognized by lowering of the temperature, weakness of the pulse, pallor, and faintness. The hemorrhage unless very profuse is not generally dangerous. Perforation is another complication, which can

occur at any time between the third, and the fifth weeks and is due to ulceration weakening the wall of the intestine, which is then perforated by some undigested matter, which makes its way through the bowel, into the peritoneal sac, there will be severe pain in the right inguinal region, extending from there over the whole abdomen, very soon after the perforation takes place. This will

vice be followed by a chill, and rise of temperature, with all the phenomena of peritonitis. Perforation is almost always fatal.

There are many lesions of typhoid fever, the most prominent of which are infiltration, and ulceration of Peyer's patches. Barthelow is of the opinion that as the germ poison first enters the intestinal canal, there would be hyperemia, and swelling of the mucous

membrane, especially around Peyer's patches, during the first week of the fever. During the second there would be infiltration of the glands, and the hyperemia would be lessened. Next will come the stage of ulceration and sloughing. The spleen begins to enlarge and soften as soon as the swelling of the mucous membrane of the intestine has begun, and continues till the third week when it may be more than

twice its normal size.
There will also be degeneration of all the internal organs to a certain extent. The heart may also be softened, and enfeebled in its action.
Prognosis: Accuracy of temperature is a favorable sign. If the temperature remain high after the third week, it shows that the case will be a long one. The absence of marked diarrhoea is a favorable sign; also when the bowels

act regularly. When there is continued delirium it is an unfavorable symptom. Mind clear, nervous tremors, excited condition, sometimes accompanied by sweats, is an unfavorable sign almost always fatal, it shows rapid extending ulceration of the bowels. Hemorrhage from the bowels while serious is not necessarily fatal. High temperature at any stage of the disease is unfavorable, any tem-

perature above 105° Fah., every degree above this shows great increase of danger. Children as a rule give a more favorable prognosis than adults. We should never despair of a typhoid fever patient, the trite old saying holds good here where there is life there is hope.

As typhoid fever is a self limited disease there can be no specific remedy although some of the Germans claim that mercury, and iodine, are specific remedies

in this fever, we think that the majority of the best authors, agree in the opinion that there is no specific, nothing which will cut short the disease. The main point in the treatment is to reduce the temperature, the best means for doing this is the administration of Liquor Aconite or veratrum viride. Some recommend that the patient be put in the cold bath, or sponged, or the use of the wet packs,

for the reduction of the temperature, in this country it is considered better practice, not to use the cold bath, on account of the great weakness of the heart action, quinia is preferred instead, as it is much safer, and very readily reduces the temperature. It should be given in large doses until there is a marked reduction in the temperature; when its use should be suspended until

the temperature rises again. In the treatment of this fever, it must be remembered that the expectant plan is the best, that is to treat symptoms as they arise. When the heart is feeble stimulants must be used. Great restlessness and loss of sleep require Opium, or some of its salts. If the tongue is dry with great thirst and the abdomen distended with gas, turpentine should be employed.

If there should be perforation there is but one remedy, the king of all drugs Opium, which is the only thing that can act as a splint to the wounded bowel, and give it the least shadow of a chance to heal, It should be employed in large doses. Good hygiene must be observed during the whole course of the fever